Austria ... Sch. 18	Indonesia .. Rp 2500	Portugal ... Esc 80
Bahrain .. Din.0.650	Italy ...... L 1300	S. Arabia .. Rls 6.00
Belgium ... BFr.42	Japan Y550	Singapore . S$ 4.10
Canada ... C$1.00	Jordan ... Fils.500	Spain .... Pta 110
Cyprus ... CC0.60	Kuwait ... Fils.500	Sri Lanka ... Rup 30
Denmark .. Dkr.7.25	Lebanon .. £L 8.00	Sweden .. Skr 6.50
Egypt .... E£1.00	Luxembourg . LFr.42	Switzerland SFr2.20
Finland .. Fmk 8.00	Malaysia .. Rin 4.25	Taiwan ... NT $85
France .. FFr. 6.00	Mexico .. Pes. 300	Tunisia .. Din 0.800
Germany . DM 2.20	Morocco .. Dh 6.00	Turkey .... L 210
Greece ..... Dr 70	Netherlands . Fl 2.50	U.A.E. ... Dh 6.50
Hong Kong . HK$ 12	Norway .. Nkr. 6.00	U.S.A. $1.00
India .... Rup. 15	Philippines . Pes. 20	

FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

No. 29,758 — Monday October 21 1985 — D 8523 B

Japan strains to encourage foreign imports, Page 4

World news — Business summary

Three shot dead at S. African funeral

Three mourners at the funeral of a 13-year-old boy in a black township near Pretoria were killed when South African police fired at the crowd.

However, there were no problems at another funeral – this one for three coloured youths killed in the Cape peninsula by police who hid in a decoy lorry.

Meanwhile, the house of a white former rugby star who has supported multi-racial sport was destroyed by fire in Port Elizabeth. Page 3

Typhoon kills 54

At least 54 people were killed when Typhoon Dot struck the Philippines. Gusts reaching 150mph demolished homes and caused mud slides and flash floods.

95 police injured

Japanese demonstrators protesting against plans to build a second runway at Tokyo's Narita airport fought with police, injuring 95 officers. At least 240 protesters were arrested.

Afghan-Soviet swap

Afghan guerrillas claim they exchanged two Soviet soldiers for six imprisoned rebels on August 24 – the first swap involving Soviet troops.

Uganda peace 'close'

Kenyan President Daniel arap Moi, who is heading talks between Ugandan rebels and the Kampala Government, said he hopes this week's talks will bring peace to Uganda after 20 years of violence.

India opens N-plant

India began operating an experimental fast breeder nuclear reactor at Katpakkam near Madras. Only the U.S. and a few European countries have such reactors.

17 killed in Sri Lanka

At least 17 people, including 11 Tamil separatist guerrillas, were killed in ethnic violence in Sri Lanka's northern and eastern provinces during the weekend.

Korean boat sunk

The South Korean Navy says it sank a North Korean boat that was allegedly spying off the port of Pusan.

Law court bombed

A bomb exploded in Luxembourg's justice building, damaging an office but causing no injuries. Police have reported 11 bomb attacks in Luxembourg this year.

Luggage bomb study

A U.S. Congressional committee urged the Federal Aviation Administration, America's air travel watchdog body, to speed up efforts to develop equipment to detect explosives in luggage. The FAA said it would take more than two years to develop better devices.

New UK coal union

The new Union of Democratic Mineworkers in Britain will begin a nationwide campaign to replace the National Union of Mineworkers, which it defeated in regional elections in Nottinghamshire and South Derbyshire. Page 6

British hold trawler

The British Royal Navy has detained a Spanish trawler off the coast of Scotland and charged its captain with fishing illegally in British waters.

Arms deal opposed

Israeli Prime Minister Shimon Peres said proposed U.S. arms sale to Jordan would be unacceptable to his government even if Congress reduced the scope and speed of the weapons delivery.

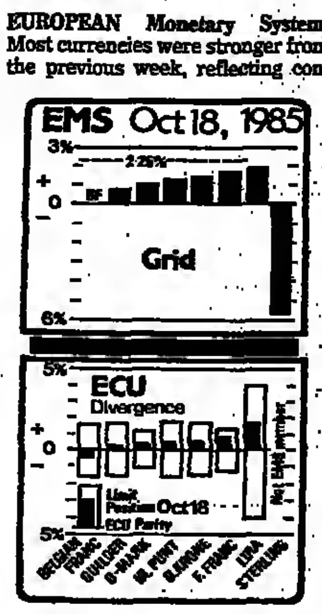
Sackings revoked

Liverpool City Council leaders agreed to withdraw dismissal notices that were issued last month to 31,000 employees because of the city's budgetary crisis. Page 6

Elders poised to bid for Allied

ELDERS IXL, Australian brewing, agricultural services and trading group, is expected to launch Britain's biggest ever takeover bid today with a £1.75bn ($2.47bn) offer for Allied-Lyons, the food and drinks conglomerate. There were doubts last night whether Elders, with a market valuation of about a quarter that of Allied, had succeeded in its six-week search for international partners to join in the bid. Page 20

EUROPEAN Monetary System: Most currencies were stronger from the previous week, reflecting continued dollar weakness. Disappointing economic data and further central bank intervention depressed the U.S. currency. Consequently the D-Mark improved, although that appeared to put no pressure on the weaker members. The Belgian franc remained the weakest currency but improved sufficiently to allow a half-point cut in the discount rate to 9 per cent. The Italian lira showed little initial reaction to the resignation of the Italian Government.



The chart shows the two constraints on European Monetary System exchange rates. The upper grid, based on the weakest currency in the system, defines the cross rates from which no currency (except the lira) may move more than 2¼ per cent. The lower chart gives each currency's divergence from its "central rate" against the European Currency Unit (ECU), itself a basket of European currencies.

TOKYO: The Nikkei Dow Jones index closed on Saturday 42.47 points up at 13,015.69.

YEN bond futures trading drew a flood of contracts at its opening in Tokyo on Saturday. Page 23

JAPANESE banks are pressing the Ministry of Finance to relax its regulations on lending to countries that have rescheduled their debts after last week's U.S. initiative on easing the debt crisis. Page 23

EUROBONDS: More than $10bn in floating-rate notes have been called before maturity this year, compared with less than $1bn in 1984, because borrowers see present fine margins as a chance to refinance more cheaply. Page 21

BANQUE Nationale de Paris, France's largest bank, is to enter the Turkish market through a joint venture with Akbank, Turkey's leading privately owned bank. The venture, 49 per cent-owned by BNP, will concentrate on trade financing. Page 21

LEYLAND, UK bus manufacturers consortium, whose bid for the renewal of Bangkok's bus system was blocked by the Thai Government, has submitted a new offer worth less than a quarter of the original £385m ($542m) deal. Page 20

AMR, parent of American Airlines, the second biggest U.S. carrier, lifted third-quarter net earnings from $78.6m last year to $87.3m and achieved a significant 18.2 per cent increase in revenue passenger miles. Page 21

WANG Laboratories, U.S. office equipment manufacturer, produced a profit of $7m in the first three months of its fiscal year after a $109m loss in the previous quarter, and said it was cautiously optimistic for 1986. Page 23

Volcker to press U.S. banks over Third World debt

BY PAUL TAYLOR IN NEW ORLEANS

MR PAUL VOLCKER, chairman of the U.S. Federal Reserve Board, will today urge support from American bankers for the Third World debt plan presented by Mr James Baker, the Treasury Secretary.

Mr Volcker has called a private meeting with the group of bankers to make his call as part of an apparent effort to win support for the three-part Baker proposals put forward at the International Monetary Fund (IMF) meeting in Seoul this month.

They include a request that commercial banks provide about $20bn over the next three years in additional loans to less developed countries.

Mr Volcker will also address the Association of American Bankers in New Orleans.

Mr Jim Cairns, president of the People National Bank of Washington and outgoing president of the association which represents most of the nation's 14,000 commercial banks, said the meeting would also include members of the Association of Reserve City Banks (ARCB) which represents most of the leading money centre banks.

Mr Paul Volcker

Many banks remain deeply sceptical about the request for additional lending to Third World nations, arguing that credit problems in the energy, property and agricultural sectors of the U.S. demand equal or greater attention.

While Mr Cairns said the association would not be putting forward a formal response to the Baker initiative at the meeting, he also indicated that many smaller banks would like to see some direct linkage between new lending to debtor nations and the domestic credit difficulties.

He noted: "There are lots of parallels between agriculture concerns we have and international lending concerns we have." He suggested that association members might be more receptive to the Baker plan if they believed it would lead to higher purchases of U.S. products, including agricultural commodities.

Behind those doubts lies the longstanding rivalry between the nation's small bankers and the leading mooey-centre banks, which hold about 85 per cent of U.S. loans to less developed countries. Many smaller U.S. banks have been reducing their exposure in recent years and generally view the problem as one for the majors.

Commonwealth struggles for unity over S. Africa

BY ROBERT MAUTHNER, DIPLOMATIC CORRESPONDENT, IN NASSAU

COMMONWEALTH leaders were yesterday painfully inching their way towards a declaration on South Africa that would paper over the fundamental disagreement between Mrs Margaret Thatcher, the British Prime Minister, and most of her 48 colleagues on economic sanctions.

Strenuous attempts were being made at the luxurious country club "retreat" at Lyford Cay, some 17 miles from Nassau, where the leaders gathered over the weekend, to find a form of words that would prevent an open show of disunity.

The effort made by some of the African "front-line" states, India, Australia and Canada to avoid an open clash with Britain has been one of the outstanding features of this conference, which has now entered its fifth day.

The main protagonists in the moves to find an acceptable basis for compromise were Mr Rajiv Gandhi, the Prime Minister of India, and Mr Brian Mulroney, the Canadian Premier. The two leaders, who were representing a four-nation group which also included Zambia and Australia, met Mrs Thatcher twice for a total of six hours on Saturday.

It is becoming increasingly clear that Mrs Thatcher, while accepting the creation of a Commonwealth liaison committee of "wise men", which would attempt to promote a dialogue between the Pretoria regime and leaders of the black community, will refuse to modify her position on further economic sanctions.

The problem all along has been to take account of that position, without forcing the majority of other states, which favour sanctions, to abandon their stand.

The manner in which this is likely to be achieved is now becoming clearer. The document will certainly start with a ringing call for the abolition of apartheid and the institution of genuine democracy in South Africa.

It is likely to go on with the announcement of the setting up of a Commonwealth group to promote a dialogue between the white-dominated regime and the black population in South Africa.

The problem of sanctions, however, will be fudged. Instead of listing new economic sanctions, the document will probably confine itself to enumerating the sanctions already applied by Britain and other member states. These include an arms and oil embargo and the cutting of sporting, cultural and military ties. The declaration is also likely to make clear that every member state is free to introduce whatever sanctions, including economic measures, it deems appropriate.

There can be no doubt that such an outcome would be a disappointment to most of the Commonwealth states. At least one, Nigeria, has threatened that failure by Britain to endorse economic sanctions would lead to a further deterioration of the already tense relations between the two countries affecting, in particular, trade, investment and the repayment of debts.

The U.S. has kept a close eye on the conference. A senior U.S. official based in London, with the status of diplomatic observer at the conference, has told representatives of the African front-line states that they could not expect the U.S. to bail them out if sanctions against South Africa had an adverse effect on their own economies.

Ferruzzi leads move to reshape ownership of Montedison

BY ALAN FRIEDMAN IN MILAN

SIG RAUL GARDINI, managing director of Ferruzzi, the privately held Italian agribusiness concern, is likely to emerge at the head of a group controlling the largest shareholding in Montedison, Italy's leading chemicals company, as a result of a complex series of deals now being planned.

The transactions under preparation by business leaders in Milan would see Sig Gardini's shareholder group subscribing much of a L400bn ($225m) rights issue for Montedison next spring, thus lifting its stake to between 15 and 20 per cent.

That move would represent a key change in the map of Italian industrial power. At present, Montedison's biggest shareholder is Gemina, a financial vehicle that holds 17.1 per cent of the chemicals group and is owned by leading members of the country's financial establishment, including the Agnelli family of Fiat and the Pirelli group.

Ferruzzi is based in Ravenna. Its interests include Europe's biggest sugar operations, (including 40 per cent of France's Beghin-Say), and some 2.5m acres of land in Italy, the U.S. and Latin America. Although the group has never published a balance sheet, its annual turnover is L10,000bn, making it the third largest private-sector company in Italy after Fiat and Montedison and bigger in turnover than either Pirelli or Olivetti.

Ferruzzi has a declared direct stake in Montedison of just under 2 per cent, but it has been learned that Sig Gardini has already been granted (by confidential written agreement) control of a shareholding consortium that owns about 10 per cent of the chemicals group. There has been much speculation in Italy recently about a possible alliance between Sig Gardini and Sig Mario Schimberni, Montedison's chairman.

The question of who actually controls Montedison has been unclear since the start of the summer, when Sig Schimberni incurred the wrath of Fiat and other members of the Gemina group by taking control of the Bi-Invest financial and industrial group against the wishes of Gemina.

Sig Schimberni evidently felt strong enough to break with Gemina and its backers because:

● Sig Gardini gave Sig Schimberni his backing for the ambitious industrial restructuring plan which the Montedison chairman has been pushing through;

● U.S. institutional investors who participated in the placing last spring of more than a third of Montedison's shares (then valued at $250m) also gave Sig Schimberni their informal backing.

● Dr Enrico Cuccia, the *eminence grise* at Mediobanca, the Milan merchant bank that has 13.8 per cent of Gemina and separately 7.2 per cent of Montedison, is understood to have given his blessing to

Continued on Page 20

Ministers facing pressure for Treaty reforms

By Quentin Peel in Brussels

EEC Foreign Ministers will be urged today to give new impetus to the exercise to revise their founding Treaty of Rome, with just six weeks before they have to present an agreement to the next Community summit meeting.

Officials in Brussels fear that without decisive action on the direction that reforms should take, there will be no deal to put forward in December.

A plethora of proposals for treaty amendment have been presented in the past week by many of the member states to streamline EEC decision-making, extend the powers of the European Parliament, and move the Community into new areas of operation.

Today's meeting in Luxembourg of the full inter-governmental conference, involving the Foreign Ministers of the Ten, as well as Spain and Portugal, will be asked to give clear guidance on the sort of amendments to be pursued and the priority areas they should concentrate on.

Key proposals concerning decision-making have come from France and the European Commission, while Italy, West Germany, France and the Commission have all put forward plans to give more authority to the European Parliament.

A big surprise in the past week has been the decision of Denmark, hitherto the staunchest opponent of any amendment to the founding treaty, to put forward its own suggestions for improvements. However, none would involve real changes in the power structure of the European institutions, concentrating on new areas of interest like technology and the environment.

The UK and Greece, the other two dissidents who voted against the original decision in Milan last June to hold a full-scale treaty conference, have kept silent on formal amendments, while vigorously debating the proposals of the rest.

The Netherlands has come forward with plans to extend the administrative powers of the European Commission, and to reduce its numbers to 12 – one per member state after Spain and Portugal join in January.

The Commission itself has put forward the most comprehensive package of proposals, including ways of bringing new areas of operation – high technology promotion, the environment, and further action to help the poorest member states catch up with the rest – into the Treaty of Rome.

Belgium wants a passage in the

Continued on Page 20

Italians may reconstruct same coalition

BY JAMES BUXTON IN ROME

THERE WERE signs last night that a solution might be on the way for Italy's political crisis, after a weekend that saw a diplomatic initiative by the U.S., and intense consultations by political leaders in Rome.

President Sig Francesco Cossiga is expected today to ask Sig Bettino Craxi, the caretaker Prime Minister, to form a new government. Sig Craxi resigned on Thursday after the Republican Party pulled out of his coalition in protest against the Prime Minister's handling of the Achille Lauro affair.

On Saturday, Italy and the U.S. patched the deep rift in their relations caused by the affair, thanks to a warm and conciliatory letter to Sig Craxi from President Ronald Reagan. Mr John Whitehead, the U.S. deputy Secretary of State, delivered the letter and in a two-hour meeting with Sig Craxi, helped to soothe the Italian Government's badly ruffled feelings over the harsh words the U.S. had used about it in the past few days.

Sig Craxi now looks set to go to New York later this week for Thursday's meeting of the leaders of industrial powers that President Reagan has called in preparation for his meeting next month with Mr Gorbachev, the Soviet leader.

On Friday, Sig Craxi made known that he would not go to the meeting unless there was a halt to the sharp criticism of the Italian Government that Washington and the U.S. press were making after the Italian decision last weekend to allow Mr Abu Abbas, the Palestinian leader, to leave Italy.

Many Egyptians remain angry about the U.S. interception 10 days ago of the Egyptian airliner carrying the Palestinian hijackers of the Italian cruise liner, Achille Lauro. Mr John Whitehead, President Reagan's envoy will meet Egyptian President Mubarak today to discuss tension between the countries over the incident. Page 2

Mr Abu Abbas was brought to Italy aboard the Egyptair Boeing intercepted by U.S. jets. In his letter, Mr Reagan told Sig Craxi that he was anxious to hear his point of view on the summit with the Soviet leader. Mr Reagan said that despite the differences they had had in the past week, "which we have tackled in an open and friendly way," the two men shared "basic commitments on the need to respond with firmness to the challenges of international terrorism."

He added: "I want you to know that I never had any doubt that your government would rapidly prosecute the hijackers of the Achille Lauro."

Continued on Page 20

Channel link stake by British Telecom

BY LISA WOOD IN LONDON

BRITISH TELECOM is to take a stake in the Euroroute consortium, one of the rival groups applying to build a fixed link across the Channel between England and France.

BT said yesterday its limited stake would represent about 10 per cent of the initial investment. "However, if the Euroroute consortium receives approval for its scheme, additional funding will be needed, thereby reducing the proportion of our investment."

BT declined to say how much its investment would be. Details are expected to be announced later this week.

BT is interested in the telecommunications aspects of a cross-channel link. It could provide a route for extra cables to Europe at a time of increasing congestion in the international telecommunications business.

Euroroute, the major rival consortium to The Channel Tunnel Group, is led in the UK by Trafalgar House with other British shareholders including Associated British Ports, Barclays Bank, British Shipbuilders and British Steel. Its project, which combines a bridge and tunnel road scheme, has a final estimated cost of £6.3bn. The Channel Tunnel Group scheme is for a bored rail tunnel with traffic being carried across on shuttles. Two other schemes are also likely to be submitted.

Applications to build the link are to be submitted to the British and French governments by October 31. If the schedule is kept, the winner will be announced in mid-January, and work started by autumn 1987.

CONTENTS

OVERSEAS NEWS

Egypt waits for U.S. message as tension grows

BY OUR CORRESPONDENT IN CAIRO

EGYPTIAN officials are hoping that Mr John Whitehead, the U.S. envoy who arrived in Cairo yesterday from Italy, is bringing a message from President Ronald Reagan which will defuse tha mounting pressure on President Mubarak's gevernment.

About 1,500 students fought a running battle with police at the weekend at Ein Shams university in the wake of tha Achille Lauro hijack, and demenstrations have called fer an end to ties with Israel and the U.S. and criticised tha president's pro-Western stand.

Mr Whitehead's meeting with President Mubarak today will reveal whether be carries a message that can assuage tha deep hurt felt by most Egyptians over the U.S. interception ef the Egyptian airliner carrying the Palestinian hijackers.

President Mubarak decided not to cancel a scheduled visit te Beni Suef yesterday to inaugurate some farm projects and te address a political rally, as an indication of the bumiliation still felt by Egypt.

Since the signing of the Camp David accords with Israel in 1978 Egypt has been a keen ally of the U.S. and receives some $2bn a year in aid. Observers believe that neither country can risk a major rift but Egyptians feel that the initiative for reconciliation now lies with the U.S.

When President Mubarak came to power in October 1981, after the assassination by Islamic fundamentalists of President Anwar Sadat, be promoted himself as being strongly against corruption. His afforts to democratise the country are today reflected in a vibrant epposition Press.

Many Egyptians new believe that, despite his integrity, he may not be up to the job during a period ef economic and political instability.

The strong man whem ebservers see as an obvious contender for leadership is Field Marshal Halim Abu Ghazaleb, the Minister of Defence. Like Muharak, Mr Ghazaleb is a stauncb supporter of tha U.S.

Syria and Jordan renew talks on reconciliation

BY LOUIS FARES IN DAMASCUS

THE FIRST train fer 18 menths travelled between Damascus and Amman at the weekend as the Primo Ministers of Syria and Jordan arrived in Riyadh for a secend round of reconciliation talks.

Mr Aqil Ismail, Director General of the Hijaz railway, said that from now on one train will transport cargo every week "according to the commen wisb of the two countries." Cargo capacity was about 300 tons, and more trips could be added

Saudi efficials said the Arab League sponsored talks between Prime Minister Zeid Rifa'i of Jordan and Prime Minister Abdel-Rauf al-Kasm of Syria, weuld be attended by Saudi Arabian Crown Prince Abdullah Ibn Abdulaziz, Prince Saud al-Faisal, Saudi Foreign Minister, Mr Chedi Klibi, League Secretary General.

Arab diplemats said there appeared to be encouraging signs of a desire by both ceuntries to boost bilateral trade and end propaganda warfare. They said it was signicant that Isam al-Na'ib, Syrian Minister of State, attended Friday's funeral in Amman of Mr Abdul-Mune'eb al-Rifa'i, a former Jordanian Prime Minister and uncle of the present government leader.

Mr Nai'b was the first senior Syrian official to visit Jordan for several years. The usually well-informed Jeddah-based newspaper Ash-sharq al-Awsat, said Jordan's February accord with the Palestine Liberation Organisation (PLO) for a negotiated Middle East peace, which Syria describes as capitulatory, would top the agenda for the talks.

Gemayel angered by role of rival Christians

By Nora Boustany in Beirut

PRESIDENT Amin Gemayel ef Lebanon has signalled his displeasure te Mr Hafez Assad, the Syrian leader, about the involvement of rival Christian leaders in talks aboot the future of Lebanen.

Gemayel indicated his approval of a draft plan for ending the war in Lebanon and a power-sharing formula faveuring the Christian side after his ninth summit meeting with Mr Assad which ended at the weekend. In spite of assurances from the Syrians that no side deals would be concluded with Lebanese adversaries, however, Mr Gemayel privately objected to the attention they were getting in Damascas.

His meeting with President Assad and Abdel Halim Khaddam, the Syrian vice president, were preceeded by consultations with representatives of Lebanon's three main warlords. A blueprint for an agreement has been thrashed eut fer final approval next week by Christian militia cemmander Elie Hobeika, Shi'ite leader Mr Nabih Berri and Druze chieftain Mr Welid Jumblatt in Damascus.

Fighting in Christian areas, last week, triggered by inter-Christian feuding over a possible Syrian military role here, was bushed up and appears to have stalled any prompt application of the plan.

Leftwing Lebanese leaders, considered clese to Syria, have said that prior te any serious peacemaking efforts, a "cleaning up" eperation inside Palestinian guerrilla camps south of Beirut will get underway.

Militia sources disclosed that Lebanese militia groups under Syrian control will be asked to undertake the task of disarming the camps as a prelude to ether moves.

President Gemayel, who flew to New York en Saturday to address the United Nations General Assembly, will stop in Damascus on his way back to Beirut.

He has complained to Syrian officials that while be was the "Godfather" of Lebanon's Syrian option last year, they were conferring with his opponents, who he described as "newcomers."

Christian Democrats regroup in Rhineland

BY RUPERT CORNWELL IN BONN

WEST GERMANY'S Christian Democrats (CDU) this weekend made two important moves to shore up its wavering fortunes in the country's most populous state of North Rhine Westphalia, which could have an important bearing on tha federal elections in early 1987.

Tha Rhineland CDU which, with 136,000 paid-up members, is the largest such organisation ef any West German state, elected a new leader, the energetic 43-year-old Herr Dieter Pützhofen, the mayor of Krefeld. At the same time it voted overwhelmingly to merge itself with the CDU party in neighbouring Westphalia, a decision which sheuld becoma fact by next March.

The overhaul, aimed to breathe new life into the party in a state which represents around a third of West Germany's electorate comes five months after the Christian Democrats suffered their worst defeat in a North Rhine Westphalia state election.

The party saw its share of the vote there fall by nearly 7 per cent on May 12 to barely 36 per cent. By winning an unprecedented 52.1 per cent, Herr Johannes Rau, the state's prime minister, not only gave the Social Democrats unhampered control, but also established himself as the SPD's next candidate designate for the chancellorship in Bonn.

Part of the blame for the disaster was pinned on Herr Bernhard Worms, the somewhat colourless outgoing leader of tho Rhineland CDU, whom Herr Pützhofen now replaces. But at least as much of the responsibility, it was widely argued, lay with the anomalous structure of the party in the state, and the inherent rivalry between the two CDU organisations in the Rhineland itself, and in Westphalia.

At the weekend congress in Düsseldorf, Herr Pützhofen implicitly attacked the CDU-led Government in Bonn, under Chancellor Helmut Kohl, for giving undua attention to states where the CDU was already solidly in power, at the expense of those, like North Rhine Westphalia on which it should be concentrating for the next election.

But ho carefully left open the delicate matter of who would lead the new single party organisation in the state, a position whose holder will automaically become a key force to be reckoned with in national CDU politics.

The choice lies in effect between Herr Pützhofen and the Westphalian party leader, Herr Kurt Biedenkopf, a lawyer who is no friend of Herr Kohl, and whom the Chancellor unsuccessfully tried to shift to the presidency of the EEC Commission in Brussels in 1984. Both have signalled in the last few days that if chosen to head a united state party with some 270,000 members, they would seek a considerably larger measure of influence in Bonn as well.

Johannes Rau . . . facing new competition

Reagan outlines wider summit agenda

BY REGINALD DALE, U.S. EDITOR IN WASHINGTON

PRESIDENT Ronald Reagan has issued a reminder that the success of his summit meeting with Mr Mikhail Gorbachev, the Soviet leeder, next month does not just hinge on pregress en arms control.

Moscow must also be ready to change its behaviour in a wide range of other areas, from human rights at home to "armed intervention and subversion" around the world, he suggested in his weekly radio broadcast.

His remarks followed criticism that the Administration has so far allowed Mr Gorbachev to dictate the main thrust of the summit agenda by focusing the spotlight en Mr Reagan's Star Wara spaca defence programme.

While reaffirming the importance of drastic reductions in nuclear weapons, Mr Reagan said: "True peace must be based on more than just reducing the means ef waging war."

"It must address the forces of tension that provoke man to take up arms. True peace is based on self determination, respect for individual and human rights, epen and honest communications."

Whether the summit would help to guarantee "a safa path into the 21st century" would depend on Moscow's willingness to modify its worldwide conduct and the treatment of its own citizens, as well as restrain its arms build up, he said.

Mr Reagan's comments were intended to set the tone fer a two-day visit to New York, starting on Wednesday. On Thursday ho is to deliver a major speech to the United Nations General Assembly and hold consultations with five ether Allied leaders in a Western "mini summit" to prepare for bis encounter with Mr Gorbachev.

● Mr Mikhail Gorbachev meets Warsaw Pact allies in Sofia this week for a summit at which the Communist military alliance will co-ordinate policy towards the West ahead of next month's superpower summit in Geneva.

In line with East Bloc practice en such occasiens, no precise date has been announced for the Sofia summit. But sources said it could be held on October 22 and 23.

At the end of their meeting the seven Communist leaders are expected to issue a joint communique urging the U.S. to reply to Mr Gorbachev's recent proposal for a joint cut of 50 per cent in long-range nuclear weapons.

Western diplomats also expect tha Pact to condemn the U.S. Strategic Defence Initiative (SDI) programme

---

Soviet industrial output grew by 3.7 per cent in the first three quarters of the year but oil production is down by 4 per cent over the same period in 1984, writes Patrick Cockburn in Moscow.

Gas output at 473bn metres is 10 per cent up, but everall growth is still patchy and below the 4 per cent target which Mr Mikhail Gorbachev, the Soviet leader, says he needs to meed the demands ef investment, defence and consumption.

Steel production was down 1m tonnes at 116m, but coal output was up by 7m tennes at 542m.

Hungary puts Western newspapers on sale

BY LESLIE COLITT IN BERLIN

HUNGARY bas become the first Warsaw Pact country to put Western newspapers on sale to the public. The move coincided with the belding of a major cultural conference in Budapest sponsored by European Goverments to discuss the issue of a freer flow of information between Western and Eastern Europe.

Hungarian officials said the decision to make Western newspapers available to ordinary citizens was not a temporary measure. It is to be expanded to include news stands in all major Hungarian cities.

The newspapers which went on sale were the International Herald Tribune, the Times and Frankfurter Allgemeine which were previously available only at a few hotels catering to Westerners in Budapest.

Western newspapers are read in Eastern Europe by a considerable number of high-ranking officials, but access to them by the public has been virtually non-existent in all countries except Poland, where they have been available in reading rooms.

East European officials argue they do not have sufficient hard currency to offer Western newspapers on news stands. Hungary, however, has taken this step at a time when it has suffered a fall in hard currency earnings

In East Germany Western newspapers are sold only at a few top hotels and West German newspapers are usually confiscated at the border and may not be mailed to East Germans.

Chrysler union seeks extra cash

By Terry Dodsworth in New York

TRADE UNION representatives of 70,000 striking car workers at Chrysler, the U.S. motor company, hardened up proposals at the weekend for special cash bonuses aimed at recovering lost wages from the salary cut-backs of the last five years.

Tha new demands emerged from a meeting between the top-level negotiating committee of the United Auto Workers (UAW) and Chrysler's 170-member workers' council, which represents shop-fleor employees.

Mr Owen Bieber, president of the UAW, was deliberately vague about the claim, but confirmed the union would be seeking "extra money" as well as parity in wages and benefits with Ford and General Motors.

The UAW is likely to ask for either one bonus payment or a series of staggered payments to make up for some of the money lost in concessions made to the company in its financial crisis between 1979 and 1982.

Mr Bieber, who is also a Chrysler main board director—a position he has temporarily vacated to lead the union negotiations—appears to be optimistic that the five-day-old strike can soon be brought to an end after the resumption of talks today.

Three key issues now seem to be dividing the two sides, apart from the bonus question.

U.S. supports protests against Seoul torture

BY STEVEN B. BUTLER IN SEOUL

THE U.S. Government has lent its weight publicly to protests in Seoul against the use of torture by the South Korean Government.

The Seoul protests led to the dentention on Saturday of Mr Kim Dae-Jung who was placed under bouse arrest for one day. Thia was to prevent him from participating in a joint news conference which he and Mr Kim Young-Sam, the opposition leader, called to denounce the use of torture.

The U.S. bad mede known its "serious concern" about two "deplorabla incidents."

In August, agents of the National Security Planning Agency detained three journalists from tha Dong-a Ilbo, an outspoken daily newspaper, and beat them severely. Ostensibly, the journalists were being questioned because their paper ran an article one day ahead of the Government's official annonncement that a defecting Chinese pilot would he allowed to traval to Taiwan. The move was widely interpreted as an attempt to intimidate the paper.

The second case involves a student activist, Mr Kim Kun-Tae, currently in police custody. Mr Kim's wife saw him by accident at the Seoul prosecutor'a office, and reported that be was barely able to stand. Ha had been subjected to electric shocks, and a torture called "roast chicken." Dissidents describe this as "a process by which the victim ia suspended by a pole under his arms which are tied behind bis knees, and force-fed pepper-laced water, then beaten repeatedly while spinning helplessly in the air."

Dissidents say many other political prisoners have been subjected to similar treatment.

● South Korea sunk a North Korean boat early on Sunday morning off the south-east coast, accusing it of spying.

General Chung Jin-Kwon, chairman of the joint chiefs of staff, said that the "spy vessel" was discovered 13 miles north-east of the port of Pusan. It ignored an order to halt and opened fire whila fleeing into the night.

The South Korean armed forces gave chase for three hours before aircraft finally sank the boat.

Sino-Soviet talks end without progress

By Robert Thomson in Peking

TALKS on the normalisation of relations between China and the Soviet Union have broken up, with China's "three obstacles" to normal relations still firmly in place, though the two sides yesterday released a conciliatory communiqué.

The discussions, the seventh in a series of get-togethers, ended on Friday, and the Soviet special envoy, Mr L. F. Ilyichev, left for Moscow yesterday after a two-week visit.

China and the Soviet Union fell out 25 years ago over profound political, ideological and territorial differences. In the past two years, Sino-Soviet trade has increased markedly and China has been assiduously cultivating relationships in Eastern Europe.

However, the Chinese say three obstacles must be removed before normal relations can exist: Soviet support for the Vietnamese occupation of Kampuchea, the Soviet occupation of Afghanistan, and the mass of Soviet troops on the Chinese border.

Tha joint communiqué made no mention of any progress on any of the obstacles. It said that the Chinese special envoy, Qian Qichen, and Mr Ilyichev "continued their exchange on the question of normalisation of Sino-Soviet relations and on certain international issues."

The two sides pointed out that there was an expansion of bilateral ties and contacts in many fields, and reaffirmed their readiness to further improve and develop their relations

South African debt meeting called

BY WILLIAM DULLFORCE IN GENEVA

SOUTH AFRICA will meet its creditor banks in London on Wednesday for the first formal nagotiation since it imposed a four-month moratorium on debt repayments at the end of August.

Dr Leutwiler . . to outline mediating role

The meeting has been called by Dr Fritz Leutwiler, the former president of the Swiss National Bank, who is acting as mediator.

The one-day meeting will concentrate on technical details, according to a spokesman for Dr Leutwiler. It is unlikely to consider the political issues which have to be resolved before Sooth Africa's $24bn (£17bn) debt can be restructured and normal financial business resumed.

Swiss bankers believe it will be extremely difficult in the present political climate to reach a settlement before the end of the year, when the payments standstill is dua to expire.

Dr Leutwiler will explain on Wednesday bow he envisages his mediating role. He said earlier that be did not see himself merely as a "messenger boy" and that be boped to achieve concrete results by the and of the year.

Dr Chria Stals, Sonth Africa'a director general of finance and bead of its standstill co-ordinating committee, is expected to outline to the 29 creditors represented at the meeting proposals for managing the moratorium and possibly for making it more flexible.

Bankers are looking for clarification of how Sonth Africa intends to handle the large proportion of interbank lending in the $14bn sbort-term debt.

Other unclear points concern interest rates on the blocked loans, South Africa's position on tbe private sector debt and the coverage Pretoria ascribes to its moratorium. Some government notes and loans to the South African transport company, bave been repaid since the beginning of September.

The nub of the matter remains the attitude of the U.S. banks which precipitated the South African moratorium, wben they asked at short notice for large-scale repayments of their short-term loans.

The U.S. banks acted under pressure from the domestic anti-apartheid movement, demonstrated in the withdrawal of deposits by local authoritiea, including New York City, and growing support within the U.S. Congress for sanctions against the white regime in Soutb Africa.

The pressure on the U.S. banks bas not been eased by the hanging of Mr Benjamin Moloise in Pretoria last Friday, which has oversbadowed recent hints of reforms from Mr P. W. Botha, the South African President.

Dr Leutwiler was in New York recently but he bas given no hint of the outcome of any talks be may have had with U.S. bank leaders.

Other banks, most notably the Swisa, bave emphasised that they are not willing to fill the gap left by the withdrawal of U.S. credit to South Africa. Until the restructuring of the short-term debt, in which the U.S. banks bave tbe largest exposure, has been realised no fresh medium- or long-term credit will be available to South Africa.

Dr Nikolaus Senn, president of tbe executive board of Union Bank of Switzerland, bas said that a country which has suspended payments because its short-term loans must be restructured is not in a position to float a public bond issue.

After the U.S., the British and Swiss banks bave the largest exposures in South Africa. West German, French and Japanese bankers are also expected to attend Wednesday's meeting.

Sudan rebel leader declares ceasefire

By John Murray Brown in Khartoum

SUDAN'S two-year civil war, which bas divided the Moslem north from the Christian aouth, moved one step closer to a resolution over the weekend when the rebel Sudan Peoples Liberation Army (SPLA) declared a two-week ceasefire.

This was the first such move since the April coup led by Gen Swareddahab whicb ousted former President Jaffar Numeiri. Col John Garang, the rebel leader, aaid in an interview in Addis Ababa last week that he was prepared to meet any group, including the army, to reach a settlement.

He aet no preconditions for the talks and called for a national conference to be convened in December to discuss the issue.

Western diplomats were yesterday cautiously welcoming the rebel leader's remarks, which were described by a Government official as creating an opportunity for contact.

Col Garang also restated his various demands, whicb include the lifting of tbe state of emergency enforced since April, a cancellation of Islamic Sbaria law, the abrogation of all agreements with Libya and Egypt and the formation of a provisional government of national unity.

Rebel activity in tbe south where all road, rail and river links are cut has lessened in recent weeks, according to Western sources. In early September the SPLA lifted its 3-month siege of a town in Bahr el Ghazal province.

Earlier assurances from Col Muammer Gadaffi that Libya bad stopped supplies to SPLA came to nothing following the restoration of diplomatic relations between Tripoli and Khartoum.

Three die as police fire on funeral crowd

BY ANTHONY ROBINSON IN JOHANNESBURG

THREE people died in the black township of Atteridgeville near Pretoria yesterday when police fired tear-gas and birdshot at a large crowd of mourners at the funeral of a 13-year-old boy, allegedly killed by police on his way to a church service last weekend.

In the Cape peninsula the funeral of three coloured youths killed by railway police who fired from a decoy lorry in the coloured suburb of Athlone last Tuesday passed off peacefully on Saturday after police stayed away.

The Athlone funeral was preceded by a massive show of police force on Friday night when hundreds of troops and police backed by armoured cars and helicopters sealed off the suburb and interrogated local residents.

The night before police bad surrounded the St Athens mosque in Athlone. Shots were fired from the crowd, seriously wounding a police dog handler, after police opened fire with teargas and bird shot killing a 29-year-old Moslem, Mr Abdul Kariem Friddie.

Mr Friddie was also buried on Saturday in a ceremony attended by thousands of Moslems carrying placards with quote from the Koran and flags of the banned African National Congress (ANC). They were guarded by marshals wearing Islamic red and white check headscarves.

Meanwhile, in Port Elizabeth an explosion followed by fire has destroyed the house owned by Mr Cheeky Watson, e former Springbok rugby star whose support for multi-racial sport before it became fashionable and sympathetic attitude towards black aspirations, has made him, and his three brothers, anathema amongst rightwing elements in the police and the local white community.

The Watson brothers, who run e chain of mens clothing shops in the Port Elizabeth and Uitenhage area, have been excluded from the black consumer boycotts of wbite shops, now in its third montih, which is facing many wbite retail businesses with bankruptcy.

Indonesia moves 'illegal immigrants' to prison camp

BY KIERAN COOKE IN JAKARTA

INDONESIA is moving more than 1,200 people, mostly of Chinese origin, to a detention camp in a remote island in the east of the country. Mr Ismail Saleh, the Justice Minister, said the Government did not intend to keep the people in captivity for the rest of their lives bnt they would be kept in detention until their country of origin accepted them.

Many of those to be sent to the camp are Chinese born in Indonesia, wbo left the country in the late fifties and mid-sixties and went to Chine bnt leter drifted back. About 4m of Indonesia's 160m population are Chinese and there have been periodic outbreaks of anti-Chinese feeling

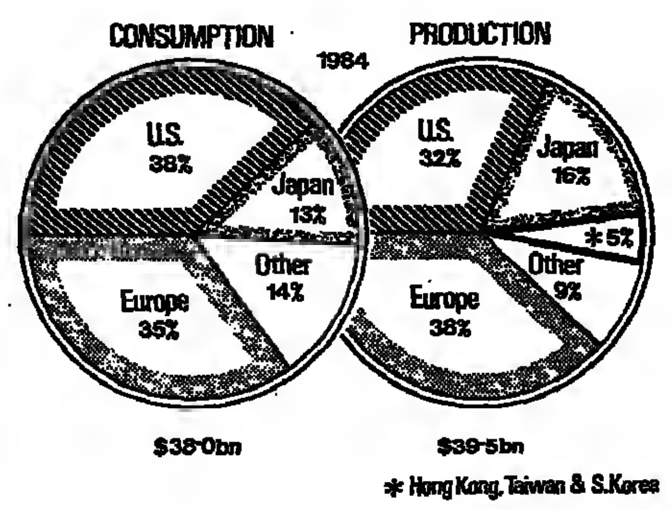
Indonesia broke off diplometic relations with China in the mid-sixties

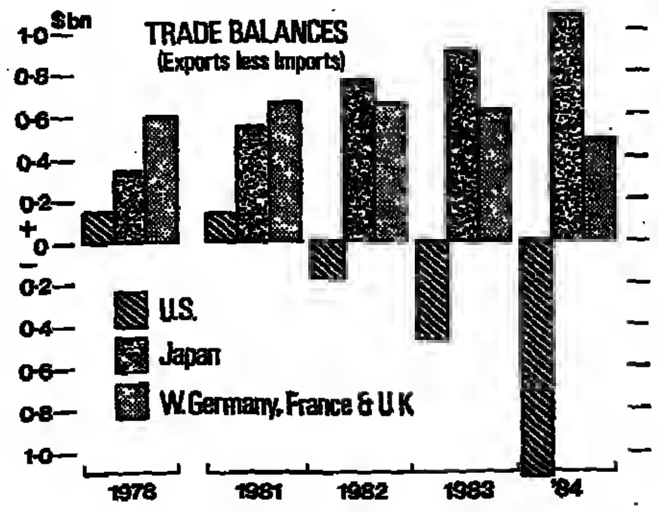
FINANCIAL TIMES

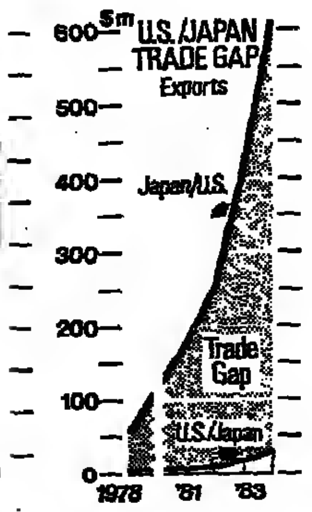
Published by The Financial Times (Europe) Ltd., Frankfurt Branch, represented by E. Hugo, Frankfurt/Main, and, as members of the Board of Directors, F. Barlow, R.A.F. McClean, G.T.S. Damer, M.C. Gorman, D.E.P. Palmer, London. Printer: Frankfurter-Societäts-Druckerei-GmbH, Frankfurt/Main. Responsible editor: C.E.P. Smith, Frankfurt/Main. © The Financial Times Ltd, 1985.

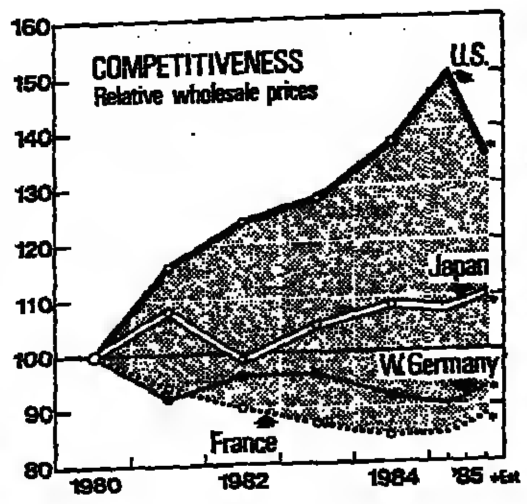
FINANCIAL TIMES, USPS No. 190640, published daily except Sundays and holidays. U.S. subscription rates $365.00 per annum. Second class postage paid at New York, N.Y. and at additional mailing offices. POSTMASTER: send address changes to FINANCIAL TIMES, 14 East 60th Street, New York, N.Y. 10022.

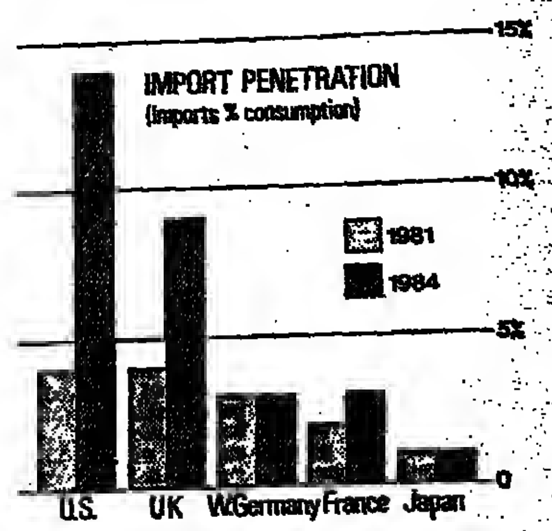
STATISTICAL TRENDS : TELECOMMUNICATIONS EQUIPMENT











U.S. and Europe dominate $150bn World market

THE WORLD market for telecommunications equipment is estimated at $40bn a year. If accessories and parts are included the total rises to $150bn.

The U.S. has 40 per cent of the market with Europe second holding a 35 per cent share. Most growth has also been seen in the U.S. in line with the country's economic expansion in 1983 and 1984.

Competition in the U.S. is probably fiercest in the $3.2bn a year market for switching equipment for telephone exchanges.

Europe and the U.S. dominate production, accounting together for 70 per cent of the total. Japan's share is around 15 per cent with the new entrants—Hong Kong, Taiwan and South Korea—accounting for 5 per cent.

Much of Japan's production is in telephone sets and related equipment aimed at taking advantage of world growth in terminal equipment and handsets, particularly in the U.S.

In 1978 the U.S. had a surplus of $150m on its trade balance in telecommunications equipment. By 1984 that bad changed to a deficit of $1.1bn, more than half of which was accounted for by the trade gap with Japan, which reached $660m. The U.S. is Japan's main export market, taking 55 per cent. For the wider definition of telecommunications—including accessories aod parts—the gap stood at $3bn.

This growing U.S. deficit on telecommunications, as with other goods, reflects lower competitiveness from a rising dollar. Even with the fall in the dollar this year U.S. products are still 40 per cent less competitive than they were in 1980.

Japan's trade balance in telecommunications equipment has grown from $340m in 1978 to $1.1bn in 1984, while the main European producers have seen their balance decline slightly from $600m to $500m.

Although the U.S. has run into a substantial deficit it remains a major exporter, second only to Japan, exporting $800m in 1984.

The Japanese and many European markets remain virtually closed to foreign imports.

Import penetration of Japan is less than 1 per cent and in Germany and France it is below 3 per cent.

Importers have increased their share of the UK market from 4 per cent to 9 per cent and in the U.S. imports now command 14 per cent against 4 per cent in 1981.

Competition in the U.S. has also been intensified by the breakup of the Bell Telephone operation with U.S. companies facing competitive bidding from Japanese and European companies for the $3.2bn market in switching equipment.

It is not clear how mnch the growth in this section—estimated at more than $10bn worldwide—is due to natural growth, and how much is due to the change from older analogue exchanges to newer digital exchanges.

● The lack of comparable historical data makes it difficult to measure any relatively new industry which is subject to technological change, such as telecommunications.

Telecommunications also covers a wide range of products and for this reason this feature has concentrated on recent trends and developments in switching and transmission equipment and related telephone and data handling equipment.

JAPAN
PRODUCTION 1984

	bn Yen
Switching equipment	201
Telephones	80
Telephone systems	234
Telephone terminal equipment	353
Data and text terminals	198
Transmission equipment	213
Other	115

Source: Mackintosh Year Book

COMPANY RESULTS

REVENUE	1980	1981	1982	1983	1984
NORTH AMERICA					
ITT ($bn)	18.5	17.3	18.0	14.2	12.7
GTE ($bn)	9.7	10.7	11.8	12.9	14.5
Northern Telecom (C$bn)	2.1	2.6	3.0	3.3	4.4
JAPAN					
Nippon Electric (Yen bn)	1,051	1,252	1,443	1,762	2,258
Hitachi (Yen bn)	3,359	3,699	3,944	4,367	5,013
OKI Electric (Yen bn)	213	243	280	345	418
EUROPE					
Siemens (DM bn)	32	34.5	40.1	39.5	45.6
CIT/Alcatel (FFr bn)	8.2	10.7	12.4	13.1	14.5
Ericsson (SKr bn)	12.2	16.2	19.5	25.2	29.4
Plessey (£m)	845	985	1,120	1,252	1,416

Source: Capital International

MAIN EUROPEAN PRODUCERS 1983/84

	W. Germany DMm	France FFrm	UK £m
Misc.	4,862	22,400	1,450
Data & text terminals	874	1,238	86
Transmission equip.	1,180	2,643	248
Telephone sets	*incld. above	2,261	168
Other Equip.	673	2,620	165
Total	7,590	22,400	1,450
Exchange rates/$	2.85	8.74	0.75p

Source: Mackintosh Year Book

U.S. TRADE IN TELECOMMUNICATIONS EQUIPMENT 1984

% shares

Exports ($780m)		Imports ($1,900m)	
EEC	15	Japan	52
Canada	14	Canada	15
OPEC	10	EEC	4
Mexico	7	Taiwan	12
Egypt	5	H. Kong	7
Japan	4	S. Korea	4

Source: OECD

TELECOMMUNICATIONS EQUIPMENT IMPORTS

% shares

W. Germany, France, UK 1984	
Japan	22
EEC	29
U.S.	22
H. Kong, Taiwan, S. Korea	7

Source: OECD

TOTAL DOMESTIC DEMAND

% change

	U.S.	Japan	Europe
1979	2.0	8.4	4.2
1980	−1.2	1.2	1.5
1981	3.1	2.1	−1.8
1982	−1.2	3.2	0.9
1983	5.0	1.9	1.0
1984	8.7	4.0	1.7
1985	3.7	4.6	1.7

Source: OECD

TELECOMMUNICATIONS EQUIPMENT
PRODUCTION

% change

	U.S.	Japan	Europe
1980			25
1981			12
1982	−12	15	4
1983	7	21	20
1984	9	16	24

Source: Mackintosh Year Book Industry Estimates

TELECOMMUNICATIONS EQUIPMENT
ACCESSORIES AND PARTS 1984

	EXPORTS $m	IMPORTS $m
Germany	1,840	1,110
France	1,200	580
UK	1,130	1,080
Japan	6,640	440
U.S.	3,420	7,800

JAPAN: TRADE IN TELECOMMUNICATIONS EQUIPMENT

% shares

Exports ($1,120m)		Imports ($40m)	
U.S.	55		
EEC	8	EEC	4
OPEC	5	H. Kong, Taiwan, S. Korea	14
Australia	3	Canada	6

Source: OECD

TELECOMMUNICATIONS EQUIPMENT
EXPORTS $m values

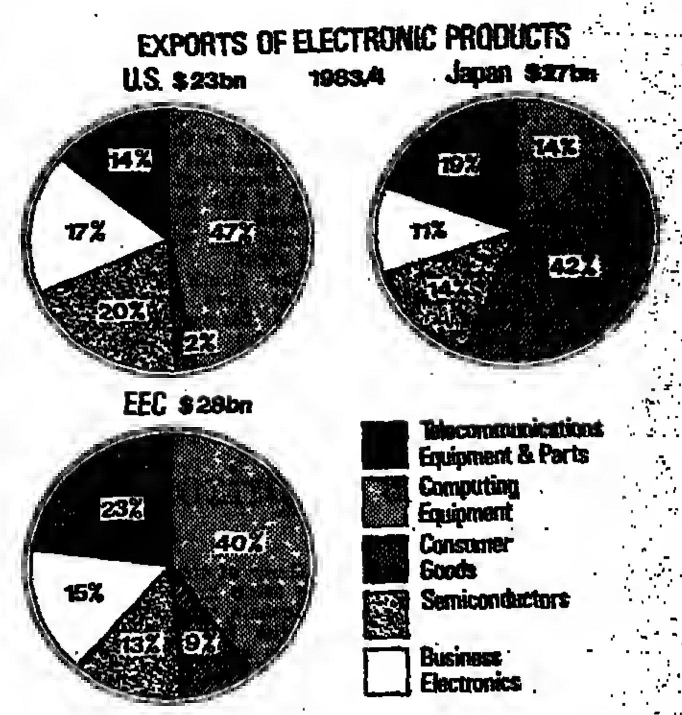
% change	1978-81*	81-82	82-83	83-84	1984
U.S.	19	27	−4	−2	780
Japan	18	57	14	19	1,120
W Germany	9	4	−13	5	450
France	15	39	87	−21	200
UK	5	12	15	18	160

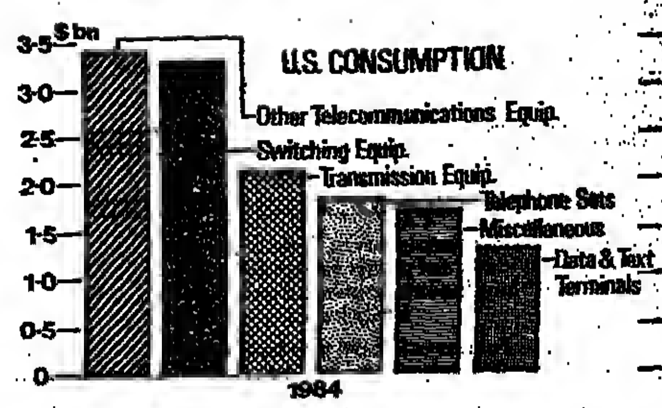
* Annualised. Source: OECD

TELECOMMUNICATIONS EQUIPMENT
IMPORTS $m values

% change	1978-81*	81-82	82-83	83-84	1984
U.S.	30	25	34	60	1,900
Japan	9	33	21	21	40
W Germany	10	−14	13	16	70
France	22	21	31	−5	50
[illegible]	[illegible]	[illegible]	[illegible]	47	190

* Annualised. Source: OECD





Commentary by Our Economics Staff; data analysis by Financial Times Statistics Unit; charts and graphs by Financial Times Charts Department.

JAPAN STRAINS TO ENCOURAGE FOREIGN IMPORTS

Mitsubishi launches 'Operation Bulldog'

BY CHRISTIAN TYLER, TRADE EDITOR

A MITSUBISHI manager in London went out jogging and stumbled on a name for the scheme his trading house, Japan's largest, is launching to help Mr Yasuhiro Nakasone, the Japanese Prime Minister, reduce trade tensions with Europe.

Mr Mikio Kawamura, a 50-year-old Sherlock Holmes fan, says he bumped into a gentleman walking his dog. After exchanging a few canine pleasantries, he found his clue and his answer.

"Operation Bulldog" is the name he chose to denote Japanese (if not British), tenacity in seeking to reduce the trade surplus that is Japan's number one foreign relations problem with the West.

Mitsubishi's London office has created an export promotion desk to provide medium-sized and small British companies with expert advice on marketing their products in the notoriously difficult Japanese market.

Mr Kawamura stressed that Mitsubishi is a business, and not involved in the political argument. But the service will be free, and he admitted that his headquarters in Japan had been asked to promote imports from countries with which Japan has a big surplus. Japan's surplus on visible trade with Britain is running at about £3bn annually.

"I don't think we shall have many inquiries about selling 100,000 tons of coal," he said "We are looking more for technically-orientated products or services, small but unique. The competitiveness of your business really lies at the grass roots. Many of your companies have brilliant ideas and products, but cannot commercialise them."

He said Mitsubishi would be frank in rejecting unsuitable products, but would even market itself products which it thought would catch on.

Initial enquiries have come from a maker of kitchen systems, a scrap metal merchant and a seller of reconditioned printing machinery.

Some British companies, according to Mitsubishi, can be "obstinate" in their refusal to modify products for the Japanese market, others are blamelessly ignorant of what will sell.

In the past, potential exporters had been rebuffed without any reasonable explanation of their failure. "This desk will give explanation, even if the case does not look hopeful," Mr Kawamura said.

Mitsubishi's London office handles 7 per cent of UK exports to Japan, and about 4 per cent of Japanese exports to Britain, according to Mr Shiro Shibuya, chairman of the London and European operation. But only 3 to 4 per cent of its traffic is British sourced. The office is the chief conduit for exports from former British colonies in Africa and from the Middle East.

Tokyo fair fails to see best of British

BY CARLA RAPOPORT IN TOKYO

CHARLOTTE BRONTE pie and Fortnum and Mason tea were meant to be on offer as part of the Great Britain 1985 Fair at Tokyo's Mitsukoshi department store.

The fair was one of 1,114 fairs planned for this month and next by Japan's leading retailers and sponsoring government agencies as part of an attempt by the Government to help Japan shed its image as an ethno-centric exporter with no appetite for foreign goods.

Unfortunately, if the Mitsukoshi fair was typical of the other 1,113, Prime Minister Nakasone still has a lot of work ahead of him. Although the store was crowded with shoppers, ranging from kimono-clad grandmothers to teenagers in jeans, most of the British counters were badly neglected.

The problem seemed to be prices, lack of variety and a sneaky tendency to place the British goods next to British-style goods made in Japan. On the Harrods stall, 10-inch mohair teddy bears bore price tags of around £33, while plastic shopping bags were priced at £10. Nearby, bulky-knit Welsh wool sweaters started at around £80.

A six-floor search failed to turn up any of the advertised Charlotte Bronte pies and most of the British foods on offer turned out to be little better than a typical selection at Gatwick or Heathrow.

Marks and Spencer knitwear was nowhere to be found. There was no Laura Ashley, no Boots and nothing from Liberty. The Scotch House was well represented, but at steep prices. A single-ply cashmere cardigan was selling for around £130, with simple wool skirts starting at around £60.

Cheek-by-jowl with the Scotch House selection were Aylesbury clothes. A close inspection of the label revealed in small English print: "Tokyo style.". Aylesbury's designs were remarkably British-looking and priced about 10 to 15 per cent less than the real thing.

The more flamboyant type of British designers were also not represented. Conservative Burberry and Daks clothes looked almost dowdy next to the romantic flounces of the Japanese designers nearby. English Paddington bears in the toy department were ignored by children with eyes only for computer games.

Retreating to the leather goods section, many of Britain's best were in evidence. Determined to buy something British, I parted with more than £70 for a Daks bag. "No need to take it from the display," I told the clerk. "I have to," she said. "That is the only one we have."

Boeing wins $90m order from Cathay Pacific

By Michael Donne, Aerospace Correspondent

BOEING of the U.S. has won a $90m (£63m) order from Cathay Pacific, the Hong Kong airline, for a fourth Series 300-747 Jumbo jet, for delivery in November, 1986.

Cathay already operates one 747-300, and has two more on order. The decision to buy the fourth stems from increased traffic growth. It will be used on services to Tokyo, Singapore, Jakarta, Frankfurt and London.

Boeing has also sold to Pan American Airways three Airbus A-310-300 twin-engined jets, for a sum believed to be around $150m.

The aircraft were originally ordered from Airbus Industrie by Kuwait Airways, but were acquired by Boeing when Kuwait decided to change from the A-310s to Boeing 767s.

Pan Am has now bought those aircraft in addition to its existing orders for 12 Airbus A-310s and 16 A-320s, with options on another 13 A-310s and 34 A-320s.

● Boeing expects to receive soon its first order for the latest version of the 747 Jumbo, the Series 400 model with improved payload and range performance.

Mr Joe Sutter, executive vice-president of Boeing, said that Boeing was also optimistic about future sales of its smaller 737-300 twin-engined jet airliner in South-East Asia, especially in China. Boeing was discussing the possible joint production of the aircraft in China, but the talks were only in their earliest stages.

● CP Air Vancouver is to swap its fleet of four Boeing 747s for four DC-10 aircraft owned by Pakistan International Airlines, Bernard Simon reports from Toronto.

CP Air, Canada's second largest airline, said the exchange was aimed at expanding its international network. The 257-seat DC-10s will allow more frequent services on existing and new routes.

Bush gives little comfort to HK on protectionism

BY DAVID DODWELL IN HONG KONG

THE U.S. Administration remains firmly opposed to protectionism and will fight such moves in the Senate, Mr George Bush, U.S. Vice President said in Hong Kong at the weekend at the end of a six-day tour of China.

He warned however that the free-trading territory of Hong Kong could not expect a special case to be made for it if the protectionist bills now being pressed in the Senate were passed.

"If the protectionist tidal wave comes rolling through the Pacific," Mr Bush told American businessmen in Hong Kong, "it is unlikely to distinguish the innocent from the guilty."

The message brought no comfort to Hong Kong's exporting community, which has in recent months become increasingly alarmed about restrictive trade laws being pushed in the Senate—particularly the Jenkins Bill, aimed at curbing textile sales to the U.S.

Mr Bush was speaking after a tour of several Chinese cities, during which he had focused heavily on trade issues between the U.S. and China. Resisting pressure to comment on his talks in the mainland, he commented: "We have some differences with China. They know what they are, and we know what they are. But we both know that the relationship is good."

The emphasis on trade naturally spilled over into Hong Kong, where Mr Bush spent just 24 hours before returning to the U.S. Hong Kong is America's tenth-largest trading partner, with two-way trade expected to reach $1.2bn (£858m) this year. Hong Kong manufacturers are likely to suffer greatly if protectionist legislation like the Jenkins Bill becomes law.

Of greater comfort was Mr Bush's forthright attack on protectionism. "The Jenkins Bill is an unsatisfactory Bill," he said. The main aim of the Reagan Administration was to agree new terms for a general agreement on Tariffs and Trade (GATT) that would ensure "a more equitable trading system," he said. He did not think the U.S. was likely to go what he described as "the protectionist route."

Mr Bush was nevertheless blunt about the strength of protectionist sentiment in the U.S. "Please understand that there is some heartbreak at home." Many jobs had been lost in the U.S. as imports had surged, especially from the Pacific, he said.

Calling for international barriers to free trade to be lowered, he warned that the U.S. Administration was "going after" states that continued to trade behind high tariff walls. "There will be no more Mr Nice Guy while others continue to violate existing trade laws," he said.

SHIPPING REPORT

Decline in laid-up tanker tonnage

BY ANDREW FISHER

THE VOLUME of tanker shipping laid-up through lack of business has fallen by some 2m deadweight tons over the past month, according to E. A. Gibson, the London shipbrokers. Sales of ships for demolition have also increased, thus helping to ease the acute tonnage surplus.

Last week was quiet in both the tanker and dry cargo markets. But in spite of the disruption in the supply of Iranian crude oil due to Iranian attacks on the Kharg Island terminal, both enquiry and actual rates for large ships in the Gulf were maintained at previous levels.

The volume of tankers and combined carriers (able to carry both oil and dry cargoes) laid up in mid-October was down to 48.6m dwt from 50.9m dwt the previous month, Gibson said. Of this, VLCCs (very large crude carriers) accounted for 42.5m dwt against 44.2m.

Part of the fall in idle tonnage stemmed from the bringing back into service of two U.S.-owned tankers and the rest by other ships resuming trading or being sold for scrap.

Gibson called the demolition sales figures encouraging. About 1.8m dwt was sold to breakers' yards over the past month, taking the total of scrap sales so far for 1985 past that for the whole of last year. Royal Dutch Shell has just sold three VLCCs for demolition, with one up for sale and another likely to be offered soon.

Gibson estimated that just over 19m dwt of the current laid-up tonnage would never trade again. This mostly comprised VLCCs, of which a large surplus has existed since the oil crisis—in the 1970s.

U.S. in coal barter deal

BY ALAN SPENCE IN BUCHAREST

THE ROMANIAN Government has agreed to a countertrade deal under which it will import 400,000 tonnes of U.S. coal, worth between $25m and $30m (£21m), in return for various Romanian products including textiles and light industrial goods.

The deal was arranged through Rindalbourne the London-based East-West trade specialists. A delegation of officials from the company, along with British MPs led by Lord Wilson, the former UK Prime Minister, met Mr Nicolae Ceausescu, the Romanian leader, late last week.

The coal will be shipped shortly from Mobile, Alabama in cargoes of up to 55,000 tonnes to Romania's expanding steel complex at Galatz, linked by seaway to the Black Sea.

Rindalbourne received the go-ahead to set up the deal in March following an earlier visit by Lord Wilson, a Rindalbourne director. Further substantial coking coal shipments to Romania via the trading company seem likely. The original initiative envisaged deliveries climbing up 180,000 tonnes a month over a ten-year period. Negotations are now under way with a U.S. supplier for a further shipment of 400,000 tonnes.

World Economic Indicators

FOREIGN EXCHANGE RESERVES ($m)

	August 85	July 85	June 85	August 84
U.S.	7,894	7,958	7,407	6,190
Japan	24,106	23,787	23,379	21,266
W. Germany	36,874	35,937	34,412	38,416
UK	8,137	8,109	7,827	6,939
Italy	19,199	19,535	18,698	19,036
Belgium	3,843	4,051	4,081	3,258
Netherlands	8,436	8,050	7,537	8,417
	July 85	June 85	May 85	July 84
France	21,547	21,685	20,968	20,058

Source: IMF

New miners' union to start recruitment drive

BY JOHN LLOYD, INDUSTRIAL EDITOR

LEADERS of the new Union of Democratic Mineworkers (UDM) begin today to campaign for members in every coalfield in Britain, with the aim of replacing the National Unioo of Mineworkers (NUM) as the largest miners' union.

The existence of the UDM was ensured over the weekend with the announcement of majority votes in the Nottinghamshire and South Derbyshire coalfields. The 1,500–1,600 members of the Colliery Trades and Allied Workers Association, whose vote will be announced today, are expected to have voted overwhelmingly for the new union.

The vote was a comfortable 72 per cent in Notts in e 90 per cent poll (17,750 to 6,792), but the slimmest of majorities – 51 per cent – in South Derbyshire (1,286 to 1,260).

Most miners in Notts, the second biggest coalfield in Britain, continued to work during the year-long miners' strike which ended last March.

Mr Roy Lynk, general secretary of the Notts area union and secretary designate of the UDM, said yesterday he and his fellow officials would meet leaders of the two other UDM sections this week to plan tactics for bringing in members. He claimed that some 10,000 miners in Yorkshire – the largest coalfield – would come over and that many thousands in other areas had already expressed interest.

The UDM will send out application forms to all miners who ask for them – though six weeks must elapse to allow for objections to the new union before the Certification Officer, who overseas union mergers, gives the UDM full independent status.

Groups of miners have been quietly formed in all other coalfields who have expressed themselves ready to act as the nuclei of the UDM countrywide. Under the UDM rules, a section of the new union can be formed where 1,000 or more mineworkers in one area come together to affiliate to it.

Mr Arthur Scargill, the NUM president, yesterday met pro-NUM activists from the Notts and South Derbyshire coalfields. He said afterwards that the NUM would have branches in every pit in both areas.

He appealed to the Trades Union Congress (TUC) and the Labour Party not to recognise the breakaway union and to the Labour Party to refuse membership to any MP or councillor who joined it.

The decision of the pro-UDM miners comes at a bad tima for the TUC, already in crisis because of the refusal of the Amalgamated Union of Engineering Workers to obey the TUC's ban on accepting state aid for ballots.

TUC leaders fear that the new Notts union could serve as a focus for an alternative centre to the TUC, one which would be greatly strengthened if the AUEW – with the electricians' union, the EETPU, which has applied for state aid – were suspended or expelled from the TUC.

The TUC's finance and general purposes committee – its "inner cabinet" – will today formally reject the offer from the AUEW to put the case against state aid to its 1m members before a ballot on taking the money next month.

Mr David Bassnett, general secretary of the General Municipal and Boilermakers Union, said the offer was a meaningless one and that the AUEW's actions were "very dangerous."

Mr Basnett's proposal, made over the weekend, to establish a "conciliation commission" to seek to mediete between the two rival miners' unions may attract some support from fellow TUC general councillors. It was rejected, however, by both Mr Lynk and Mr Peter Heathfield, the NUM general secretary, last night.

Pay talks between the National Coal Board and the Notts area – to which the South Derbyshire area is likely to be attached – are expected to resume this week.

NUM set to make move over Nobis

By Raymond Hughes

THE NATIONAL Union of Mineworkers (NUM), is poised to surmount one of the last obstacles to the removal of the High Court-appointed receiver who controls its funds.

The union is considering giving an undertaking not to sue the Luxembourg bank that handed over £4.9m of NUM funds to the receiver earlier this year.

Tha money had been deposited with Nobis-Finanz International when the NUM transferred £8.5m abroad to try to avoid court sequestration of its assets during the miners' strike.

As a condition of the money being released to him the receiver, Mr Michael Arnold of accountants Arthur Young, had to indemnify Nobis against the possibility of legal action against it by the union.

As a result £4m of the money has remained frozen in a UK bank to cover that indemnity.

The union will renew its efforts today to persuade the court to end the receivership. It will seek the end of the sequestration at a hearing fixed for November 14.

Tony Morton reports how a Scottish company won a new lease of life

Carpet maker picked up off the floor

THREE YEARS ago, with the British carpet industry in desperate trouble, Mr John Logue bought BMK, one of the most famous names in the business, from the receiver for £4m.

It was in many ways an act of faith. Mr Logue knew nothing about carpets (he subsequently took a three-day crash course in the subject at Kidderminster, in the English midlands) and he had entered the industry at a time when cheap imports from Belgium and the U.S. were flooding in. "My bank manager thought I was bonkers," he says.

Belgian prices were almost 40 per cent lower than those from British suppliers, the British workforce had fallen from 32,100 in 1978 to 17,900 at the end of 1982 and home sales by British manufacturers had dropped from 140m square metres in 1979 to 112m square metres three years later.

"It was a bad time to enter the industry," Mr Logue admits. "The position in Kilmarnock (central Scotland), home of BMK, was worse. There was a deep sense of shock within the company that it should have fallen so badly and gone into receivership. Commercially, it was disintegrating.

"But getting in at the bottom has its advantages. The situation can only get better. And I was helped by a realisation that the old practices, which had helped to bring the company low, could not continue."

Mr Logue's act of faith has been amply justified. Three and a half years on BMK has doubled turnover to £20m, turned the losses of £400,000 a month into a profit of £800,000 this financial year, invested in new machinery, created a strong team and now sells a third of its output of woven carpets abroad.

If this progress continues Mr Logue hopes that within three years he will be in a position to come back to the market for o public quote.

"The Achilles heel," Mr Logue says, "lay in production costs. Wool travelled 10 miles around the place from the time arrived to the moment it was shipped out as a carpet. "There were six plants in the town and the handling costs were enormous."

As part of a rationalisation plan Mr Logue has concentrated production in one large riverside complex and a small part of a second building which only handles the production of felt. Some 500,000 square feet of space has been demolished and a sale-and-leaseback with the Scottish Development Agency allowed the company to raise £750,000.

Mr Logue admits he was helped by the work undertaken by the receiver before his arrival. The one-time workforce of 1,500 had been pared to 160 and stocks of raw materials and work-in-progress greatly reduced. BMK, once one of the largest employers in the town, had been reduced to the status of just another medium-sized concern.

"One of the other flaws of the original corporate structure," Mr Logue says, is that the company was far too vertical. It was trying to do too many things for its own management abilities.

"It spun yarn, bleached, dyed, finished and weaved carpets. This was too much. The receiver had already sold the jute-spinning and towel-producing company, which was a start.

"My philosophy is to design, weave and sell carpets. Everything else is peripheral. This approach came as a bit of a shock to those still here. They had been brought up on different values. But they have seen it work and that has been sufficient justification."

The principle has worked admirably. BMK came back into profit by the autumn of 1982 and with the exception of the occasional month it has remained in the black ever since. As sales have increased so the workforce has expanded. It employs around 440 people and Mr Logue is looking for £2m e year profit in two to three years' time.

Why should Mr Logue, a self-confessed beginner in carpets, have staked all on a failed company at a time of acute depression?

"Basically, I had time on my hands. I had recently been divorced and another Scottish company with which I was associated was doing nicely."

When he saw an advertisement for BMK in the Financial Times, placed by the receiver, it was just the sort of challenge he was looking for.

He firmly believes the future in carpets lies in style and design. "There was always a design team here but it was producing pretty routine things. It has been beefed up and is the best in the business."

That team, which he shows off with pride, has enabled the company to win orders all round the world.

BMK's springing lamb symbol is to be seen on carpets adorning Marks & Spencer stores in Banbury and Oxford.

Others include Hyatt hotels in Indonesia and Tehran, a government building in Helsinki, the casino at Menton, southern France, the Royal Caribbean Line's four cruise ships and the World Trade Centre in Hong Kong.

"The most important step after putting the company back on its feet was an export conference late in 1982," he says. "As a result, we started putting together the marketing tools necessary for overseas sales. From there we appointed a manager for the U.S. East coast and then a strong U.S. sales force.

"Export success does not come overnight and it took quite a time for the U.S. to come good. But this year it has really started to go well. "We have only tickled the U.S. so far. It is such e big market. Perhaps 97 per cent of it concerns carpets made from man-made fibres. There may only be 3 per cent left for woven woollen manufacturers such as ourself but it can be e very profitable 3 per cent and we intend to get some of it."

UK's wool clip, Page 8

Robots will lead to 'significant' job cuts

BY DAVID THOMAS, LABOUR STAFF

MOST EXPERTS on robotics think the increased use of robots in British industry will lead to significant job cuts by the end of the century.

They also believe that employers should take employees into their confidence at every stage when introducing robots.

Those are some of the main findings of a survey, carried out by the Institute of Personnel Management with Industrial Relations Counsellors, a U.S. consultancy that has conducted a similar survey in the U.S.

In Britain, 113 people in business, universities and research institutions responded. More than half were engineers or computer scientists and two thirds worked in industry.

Defining robotics broadly to include both robots and computer integrated manufacturing, the British and U.S. respondents agreed that robotics would be introduced only gradually into manufacturing, but that its use would be widespread by 2000.

Most respondents in both countries believed that workers displaced by robotics could be retrained and re-employed within their company. However, the American survey emphasised that the main responsibility for this retraining rested with industry, while the British survey envisaged a responsibility shared between industry, the Government and the educational system.

Three quarters of the British respondents think the educational system is not geared to producing people with the skills needed for robotics – a more pessimistic response than that recorded in the U.S.

Liverpool to withdraw redundancy notices

BY IAN HAMILTON FAZEY

LEADERS of Liverpool's Labour-controlled city council yesterday agreed to withdraw the dismissal notices which were issued to 31,000 employees last month as a result of the city's budget crisis.

Council and union leaders agreed to set up an immediate inquiry into what options were available to solve the crisis. This will be conducted by the treasurers of the Greater Londoo council, Sheffield city council, Camden borough council in London and the under-secretary for finance at the Association of Metropolitan authorities.

The idea of the inquiry was put to the council on Saturday by Mr David Blunkett, leader of Sheffield council. It will work on the problem urgently – Liverpool leaders warned yesterday that the city could guarantee to pay wages only for another three weeks.

Withdrawal of the redundancy notices and the agreement to the inquiry has defused a potentially explosive situation for Mr Neil Kinnock, the Labour Party leader, who is visiting Liverpool today.

At the recent Labour conference, Mr Kinnock had attacked Liverpool's strategy of setting an illegal deficit budget.

Liverpool's leaders were adamant yesterday that certain options – such as cuts in jobs and services, rate rises and capitalisation of some current spending – would not be considered as a means of bringing the budget back into balance. They believe that the solution should be more money from the Government.

Mr John Edmonds, general secretary-elect of the General, Municipal, Boilermakers and Allied Trades Union, stressed that every possibla solution would be looked at so as not to tie the hands of the inquiry team. Politically unacceptable options could be struck out afterwards, he said.

Midland staff in strike vote

By Our Labour Staff

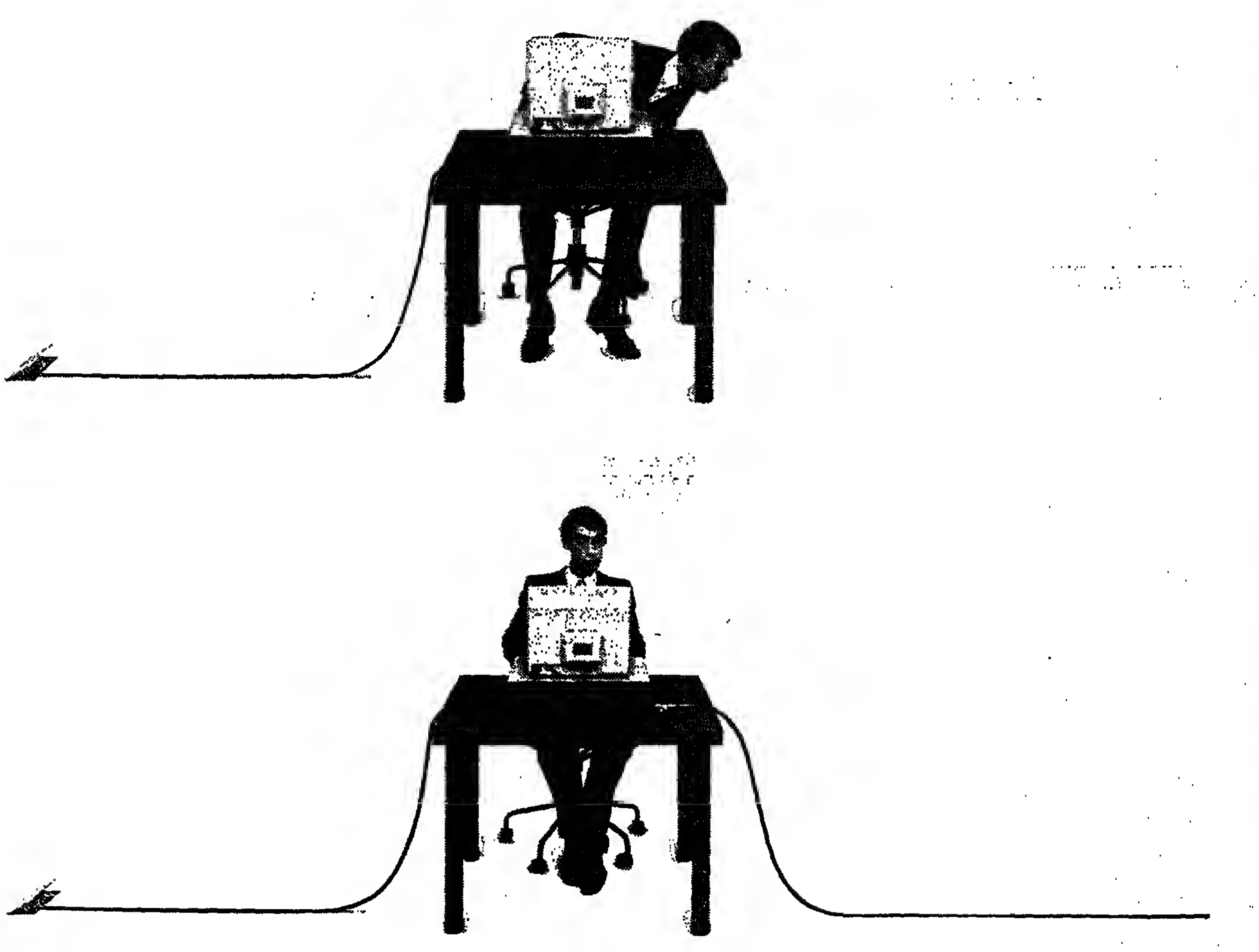
MEMBERS of the Banking, Insurance and Finance Union (BIFU) in the Midland Bank's computer centres and other technical areas have voted in favour of a series of one-day strikes. This is in protest at the Midland's decision to reduce the retirment age for men from 65 to 60 – the same as for women – at the start of oext year.

Bifu has campaigned for a reduction in the male retirement age, but is concerned about the position of short-service staff who may be forced to retire without having adequate pension entitlements at Midland. (A state pension is not payable to men until the age of 65.) The union said yesterday that some men would have to retire with peosions of only £1,400 a year.

Bifu says other big banks have negotiated a reduction in retirement age which allows men the option to work until 65.

Distillers

AN ARTICLE on page 4 of Saturday's Financial Times said that Distillers "looks as if it is about to be taken over by the Argyll Group." This should have read that Distillers "looks as if it is about to face a takeover bid from Argyll."



UK NEWS

Industry funds, staff wanted for space centre

BY PETER MARSH

THE GOVERNMENT is expecting industry to provide some of the personnel and funding for Britain's national space centre. The centre is due to be announced in the next few weeks and will co-ordinate the country's activities in space science and technology.

This approach has led to a mixed reaction from Britain's aerospace and electronics companies. These companies are the main beneficiaries of research and development contracts arising out of the country's space budget, which runs at about £90m a year.

Some companies say industry's involvement should increase the commercial relevance of the space centre. Others are unhappy that the arrangement could dilute its authority and put a strain on their own resources.

Industry is dissatisfied with the Government's slowness in formulating detailed plans for the new authority.

Mr Geoffrey Pattie, the Minister for Information Technology, said in January he was setting up the centre to knit together the work of government departments responsible for space. These are the Department of Trade and Industry (DTI), the Ministry of Defence and the Science and Engineering Research Council.

At that time, officials were confident the details would be finalised by the summer. Problems in deciding on the funding for the centre and how it will be run have led to delays.

Mr Tom Mayer, chairman of the UK Industrial Space Committee and chairman of Thorn EMI Electronics, said he was disappointed at the slow rate of progress.

He said that expecting industry to provide some of the resources and manpower would not necessarily be an objection as this could lead to an organisation with a greater understanding of commercial issues.

Other industry executives, who asked not to be named, said the approach could put an unfair financial burden on companies. If the centre were to be staffed with a large number of secondees from companies, it could lead to favouritism when handing out commercial contracts.

The arrangement could also reduce the authority of the organisation. A centre which relied heavily on industry for money and people would fail to be seen as independent and could be manipulated by pressure groups from big companies.

Sir Robin Nicholson, the Government's scientific adviser, sent a report to ministers on the setting up of the centre several months ago. It emphasised the need to involve industry on a "participative" basis.

This stance fits in with the Government's views that industry should be increasingly associated with, and to some extent financially responsible for, state-organised research activities.

Mr Pattie and other ministers appear to have still not decided on their final approach. However, the centre is likely to be in London, staffed by a secretariat, and independent of both the Trade and Industry Department and the Defence Ministry.

The centre would use the technical facilities of two government-run research establishments, the Defence Ministry's Royal Aircraft Establishment at Farnborough and the Rutherford Appleton Laboratory next to Oxford.

Rolls Royce may relaunch propellers

British and U.S. aviation companies are considering the re-introduction of propeller-driven engines. Lynton McLain reports on Rolls-Royce's plan which would cost more than £1bn to implement.

ROLLS-ROYCE'S design for a new small advanced propeller engine has been so successful that the company has started design work that might re-establish Rolls-Royce as e manufacturer of the highest-powered civil aero engines.

The UK government-owned company bas started work on propeller engines to replace the most powerful jet engines used on the biggest airliners. RR is the first of the big three international aero engine companies to admit that work is underway.

The company's programme suggests that it might require £100m of capital spending just as the Government is preparing to privatise it before the next general election.

A decision on an engine demonstrator programme might be taken in two to three years, the company said.

RR puts the cost of basic research for its advanced propeller engines at around £10m. Up to £100m will be needed for full-scale testing of the engine. Full production is likely to cost over £1bn.

The go-ahead for design studies on high-powered propeller engines for the jumbo jet market gives RR an apparent lead over its U.S. engine rivals, General Electric and Pratt & Whitney.

GE, Pratt & Whitney and RR are working separately to reintroduce small to medium-powered propeller engines to power 150-seat aircraft in the 1990s in place of conventional jet engines. The U.S. companies have not announced plans for high-powered propeller engines for the jumbo jet and Airbus market.

GE is ahead of its rivals in the production of the advanced propeller engines suitable for 150-seat airliners but not jumbo airliners. It is to be flight-tested in the second half of next year, when RR will only have started ground-testing the gearbox technology for its competing design.

The engine companies have identified reductions in fuel consumption of at least 20 to 25 per cent for such advanced propeller engines, compared with existing jet engines. "These improvements look attainable," RR said.

GE puts the potential fuel saving with advanced propeller engines much higher, at 40 to 60 per cent.

The companies see the return of the propeller as a way of making large-scale improvements in the face of the rapidly diminishing returns from development of existing jet engines. The company believes that the potential of jet engines is declining.

"You are never going to achieve fuel-efficiency improvements of 20 per cent to 25 per cent with existing engines without doing something dramatic."

"These fuel savings are viable with the advanced propeller engine, but it is impractical to build a bigger, advanced contra-rotating propeller engine for the largest airliners," RR said.

The slow-moving 13 to 14-feet diameter propeller blades, half the height of a small house, would be in danger of hitting the runway if mounted under the wings of a jumbo jet.

Smaller propellers might be a solution, but they would spin faster and create more noise.

RR's solution for high-powered propeller engines is to design a circular duct around the shorter propeller blades. That would cut noise and act as e safety barrier. The engine would have no gearbox, making it similar to the gearless, but unducted, engine produced by GE.

The RR studies of a new, high-powered engine with propellers comes after its poor performance in recent years forced it to stop developing its RB-211 series to the highest powers available from its U.S. rivals. RR stopped competing at the highest-thrust end of the engine market.

RR subsequently joined GE to share the U.S. company's technology on its CF6-BOC2 engine, with a thrust up to 62,500 lb making it one of the most powerful jet engines. In return, RR agreed to share its technology on its RB 211-535 E4 engine with 40,100 lb thrust.

RR was already in partnership with Pratt & Whitney as a partner in International Aero Engines on the V2500 advanced, medium-jet engine for 150-seat airliners.

The £1bn cost of developing a type of advanced propeller engine for production might be prohibitive for one company.

RR is considering developing two types of such engines to cover the full range of short to medium and long-range civil airliners and bas not ruled out further collaboration.

Air transport growth reveals need for more pilots

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

DEMAND for airline pilots is picking up again as a result of UK air transport growth – and there could be a shortage of pilots by the end of this decade.

A conference sponsored jointly by the Oxford Air Training School and the Ministry of Defence was told that British Airways expected to recruit 200 experienced pilots during the next two years from other airlines and the armed services.

Other airlines represented at the recent meeting designed to inform military pilots of the employment opportunities in civil air transport, included Dan-Air, which said that of 65 temporary pilots taken on this year to meet traffic growth, 45 had been given permanent appointments and 30 more would be recruited this winter.

Other UK airlines seeking pilots include Brymon Airways, Loganair, Monarch, Cathay Pacific, and Bristow Helicopters.

Mr Colin Beckwith, general manager of the Oxford Air Training School, said that airlines would need up to 550 experienced pilots during the next two years. The pilots would come from various sources, including those working in the business and general aviation sectors, but many airlines would have to "poach" from others to get what they need, he said.

During the recession of the early 1980s, the UK pilot force dropped from about 7,000 to around 5,000. The figure is now picking up again, and if expansion in UK air transport continues, there could be a shortage of pilots by the end of this decade.

The situation is partly caused by the number of pilots who will soon retire and need to be replaced.

No UK airline has trained pilots from scratch since the late 1970s. It takes several years to produce a fully qualified "line pilot" capable of flying jet airliners.

British Airways expects to start such training again in the near future, but the new pilots will not be available for line dnty until about 1990.

Business loan scheme may be relaunched

BY WILLIAM DAWKINS

PROPOSALS to inject fresh life into the Government's ailing Loan Guarantee Scheme (LGS) will reach the desk of Mr David Trippier, the minister with responsibility for small businesses, within the next fortnight.

Mr Trippier and Lord Young, the Employment Secretary, bave requested the Union of Independent Companies (UIC) a lobby group involved in drawing up the original scheme in July 1981, to produce plans for a new LGS structure.

The UIC's report will propose that the LGS should have its own separate budget which will be allocated in tranches to banks approved to disburse government-guaranteed loans to small businesses. The banks will then form LGS portfolios which will be marketable to pension funds and other institutional investors, in much the same way that venture capital funds are now.

Under the present arrangement the Government places a £50m ceiling on the volume of lending it is prepared to guarantee in a year, but LGS loans form part of the banks' general business portfolios.

The UIC plan will be considered for the Department of Employment's submission for the budget next spring and is modelled on the government-guaranteed loan portfolios marketed by U.S. Small Business Investment Companies.

Mr Bill Poeton, UIC President, says the proposal aims to reduce larger than expected LGS losses by introducing more direct competition between the banks in small business lending.

Ministers are concerned about the performance of the LGS, a measure designed to help small businesses formerly denied access to normal bank lending. It was intended to finance itself by charging a premium to borrowers, but in fact has cost taxpayers more than £72m.

Demand for LGS borrowing has been slipping since July last year, when the Government cut the proportion of a small business loan it is prepared to guarantee from 80 per cent to 70 per cent of the total.

Labour Party plans attack on S. Africa policy

By Peter Riddell, Political Editor

THE LABOUR Party intends to attack the Government this week over its policies towards South Africa and the inner cities when the House of Commons returns from its three-month summer recess.

The Commons returns to session this afternoon and will meet for about 10 days to complete business left over from the 1984-85 session. The legislative programme for the new session will be outlined on November 6.

Labour has chosen to debate South Africa on Wednesday, with Mr Denis Healey, the shadow Foreign Secretary, expected to argue that Mrs Thatcher's approach has isolated Britain internationally.

Later on Wednesday, Mr Gerald Kaufman, the shadow Home Secretary, will argue that the Government's approach to urban aid and policing has led to the curreot problems.

Retailers disappointed by September sales

BY ROBIN PAULEY

SALES IN shops fell below expectations during September after an exceptionally buoyant August, but retailers expect some improvement during October, according to the latest survey of the distributive industry by the Confederation of British Industry (CBI) and the Financial Times.

Mr John Salisse, chairman of the CBI distributive trades survey panel, said: "Sales volumes were still well above last year's levels and retailers expect sales to increase faster this month. Grocers and retailers of household goods, including cookers, fridges, and television sets, reported particularly good business, but shoe shops' sales were lower than in September 1984."

Other sectors that reported sales volumes lower than a year ago are confectionery, tobacco and newspaper shops, builders' merchants, farm machinery dealers and industrial materials wholesalers. Farm machinery dealers continue to expect lower sales than in 1984 because they have been especially badly affected by this year's poor harvest.

"Some of the smaller retailers, the corner shops, are still not doing as well as the larger multiple shops and chain stores," Mr Salisse added.

Of the 308 respondents in the retailing industry, a balance of 67 per cent had expected increased sales in September, but only 45 per cent reported that the expected increase had materialised. A balance of 53 per cent is expecting increased sales in October.

A total of 47 per cent expected to increase the volume of orders from suppliers in September, but only 37 per cent actually did so. A balance of 42 per cent is expecting to increase orders during October.

Wholesalers are expecting the reported levels of sales in September to be held in October, with 44 per cent hoping to do better than they did in October last year. That is the lowest balance expecting an increase since April.

Both retailers and wholesalers continue to report that their stock levels are too high in relation to their expected sales, although the overstocking seems to have eased a little in September compared with August.

As expected, the growth in motor traders' sales volume slowed in September after the predictably high sales levels in August, the first month of the new registration letter.

A balance of 26 per cent of the motor traders reported higher sales in September than in September 1984 – about the same proportion as expected sales to increase. A balance of only 5 per cent expect sales growth in October to be more than October 1984.

The volume of orders to motor-industry suppliers also showed slower growth in September, with the balance reporting increased orders falling to 6 per cent, compared with 19 per cent in August. A balance of 10 per cent expect to place a smaller volume of orders in October than they placed in October 1984.

There is evidence of substantial overstocking in the motor trades sector with a third of respondents saying their volume of stocks is too high in relation to sales and not one saying the stock level is too low.

A total of 580 companies in the distributive industry took part in the survey. Detailed results of the FT-CBI distributive traders survey for end-September 1985 are available from the CBI's Economic Trends Department, Centre Point, 103 New Oxford Street, London WC1A 1DU.

Britain heads for record wool clip

By Anthony Moreton

BRITAIN IS expected to produce a record wool clip of about 58,000 tonnes this year, a rise of 5½ per cent on 1984. Australia is also expected to achieve a record; the clip is forecast to rise by 1 per cent to 797,000 tonnes.

The Commonwealth Secretariat, which monitors wool movements, gives a warning, however, that Australia, which accounts for a large part of the finer wools thet go into the production of clothes, would have to come to terms with a reduced rate of increase in output.

This year's clip, which should be the largest since 1971–72, will be only 1 per cent higher than last year, when the rise was 8 per cent.

In New Zealand, largest source of wool for carpets, the forecast clip of 360,000 tonnes is likely to be the lowest for six seasons and 3½ per cent below last year's.

The secretariat also sounds a pessimistic note on the level of activity in the industry, suggesting that the cyclical peak may have been reached. Wool textile manufacturing in the 10 leading countries rose by 1½ per cent in the first quarter of 1985.

Labour claims value of asset sales greatly understated

BY PETER RIDDELL, POLITICAL EDITOR

MORE THAN 13 per cent of public expenditure was last year financed from "unsustainable" sales of public sector assets and North Sea oil and gas revenues, Mr Tony Blair, a Labour Party spokesman on Treasury matters, claims in an analysis of the Government's accounts.

In a dossier released at the weekend compiled from official information, Mr Blair argues that the separate published figures for asset disposals substantially understate the amount which the Government is receiving in various ways from the asset sales programme.

For instance, in 1984–85, in addition to just over £2bn identified in the special sales of assets programme, some £2.54bn was received from sales of land and buildings, primarily council housing. This item is officially treated as negative expenditure and deducted from programme totals.

Some £430m was raised by nationalised industries from the sales of their assets such as the Wytch Farm oilfield in Dorset by British Gas. These figures are reflected in an adjustment of these industries' external financing limits.

In total, these assets sales amounted to just over £5bn in 1984–85 compared with just under £4bn in the previous financial year.

In addition, some £12.5bn was received from North Sea oil and gas revenues and from the gas levy. Together with asset sales, this was equivalent to 13.1 per cent of public spending, up from 10.7 per cent in the previous year.

Mr Blair suggests the scale of true asset sales over the next two years could be "colossal."

He estimates that in its first six years of the Conservative Government some £62bn was received from these two sources. "Because many assets, like British Telecom, have been sold for far less than they were worth, the deterioration in the underlying balance sheet for the public sector has been much worse. With North Sea revenues now facing decline, the Government will go on the rampage, stripping assets from wherever it can."

The Treasury's decision to treat one-off sales of public sector assets as negative items has been persistently questioned and criticised by the Treasury and Civil Service committee of the House of Commons.

The Government's view has been that it is reasonable to treat such disposals as negative expenditure

THE WEEK IN THE COURTS

Diplock: a faultless jurist though a difficult judge

LORD DIPLOCK, who died last week in judicial harness after nearly 30 years on the Bench, possessed a huge legal talent, a penetrating mind and e gift for intellectual analysis and literary exposition.

Future generations of lawyers, who will assess his judicial quality mainly through the prodigious output of leading judgments over a wide range of the law, will doubtless rate him among the best this country has produced. To those who have been his contemporaries the judgment will be more critical. While as a jurist Lord Diplock would be hard to fault, he never wore the mantle of judge easily upon his shoulders.

The gentler professional opinion would be that Lord Diplock had too great a zest for classification of the law, too much yearning for its logic. He epitomised the very opposite to what that greatest of all Anglo-Saxon lawyers, Justice Holmes of the U.S. Supreme Court, aspired when he wrote that the life of the law "has not been logic: it has been experience."

One felt so often with Lord Diplock that he had only the barest of nodding ecquaintances with experience beyond the Temple and the hunt.

Holmes declared that the law embodied the story of a nation's development. It could not be dealt with as if it contained "only the axioms and corollaries of a book of mathematics." Lord Diplock positively relished the task of unravelling the complexities of the law. He once claimed that the beaoty of the common law was thet it was a "maze, not e motorway."

He was ambivalent ebout civil liberties, or probahly was unaware that his logical approach led him to come down oo different sides of the liberal fence. In some areas he was against euthority. He heartily disliked the law of criminal conspiracy, and took every opportunity to decide that a crime had not been committed.

On the other hand, he was one of the few senior judges who approved io the early 1970s of the move to end the accused's right to silence. On contempt of court he gave judgment either way. On race relations he was distinctly cool towards those suffering discrimination, regarding the legislation as undermining the civil liberties of the majority.

He wrote: "This is e statute which, however admirable its motives, restricts the liberty which the citizen has previously enjoyed at common law to differentiate between one persoo and another in entering or declining to enter into transactions with them. . . . In the field of domestic or social intercourse differentiation in treatment of individuals is unavoidehle. No one has room to invite everyone to dinner. The law cannot dictate the choice of one's friends."

Sometimes his logical approach had immensely powerful effects for the good. If there is anyone who can claim to be the architect of the modern English administrative law it is Lord Diplock. He described the evolntion of a system of public law as "the greatest jndicial achievement in his time," for which he has made the major contribution. His exposition of the state of administrative law in the GCHQ case last year is e masterpiece.

The harsher criticism comes from those who demand not just a high quality of intellect from their judges but the behaviour of a judge—quick, courteous and right. If Lord Diplock exhibited the first and the third attributes, he never acquired the second.

He had almost invariahly found the legal solution to a case before he even came into court, and spent the time in court sniping at counsel for the side that was going to lose. Otherwise he paid little attentioo to the submissions of counsel. He was observed to say that in the GCHQ case last year he entered e note in his notebook for the first time only en the fifth day of the hearing.

He was quite indiscriminate on whom he poured his scorn. Even his fellow judges did not escape his brand of jodicial humour. Once, when sitting in the Court of Appeal as the junior Lord Justice to Lord Denning and the late Lord Justice Harman, he gave the third judgment—after the other two had allowed the appeal—saying: "For the reasons given by my brother Harman, I would dismiss this appeal."

He would have been more suited to the Continental style of judicial process, with its emphasis on written submissions to the court and restricted oral arguments, rather than to the expansive orality of the English process. Lord Diplock demonstrated this by the easy manner with which he mastered the jurisprudence of the European Court of Justice and the legislation emanating from Brussels.

Whatever one says of the judicial performance, there was never any doubt about Lord Diplock's undivided devotioo to the common law of England. He gave of himself unstintingly to the task of adapting the commoo law to changing social conditions, while eschewing any avowed political attitude.

His own life was wrapped around the practice of the law. Even wheo he became ill three years ago he declined to lay down his judicial robes. And he was painfully and slowly writing another judgment last Friday a week ago, only hours before being taken to hospital to die. His personal courage was reflected in his judicial work.

If he was maddeningly always seeo to be so much cleverer than anyooe else in court, Lord Diplock oever lost the respect and admiration of his professional colleagues. Without him there will be no one to chart the route through the thickets of yet further mazes.

Justinian

INSURANCE

Mixed reaction to licensing proposals

BY ERIC SHORT

AT THE end of August the Marketing of Investments Board Organising Committee set out proposals for a system of licensing life assurance and unit trust salesmen. It was the committee's first move towards protecting investors in the field of prepackaged investments.

Last week the life assurance industry, insurance brokers and other interested organisations submitted their reactions to MIBOC.

There is no official system of licensing people selling life assurance, a gap that has caused some concern to Professor Jim Gower, the architect of the investor protection proposals.

However, MIBOC now proposes that all people selling life assurance and unit trusts on a full-time basis should be licensed.

There is widespread acceptance that there should be a licensing system and that it should have statutory backing. There is also universal acceptance that the licence should be given after the persoo has ettained a certain level of competence and edheres to some code of selling coodoct.

When it comes to practicalities, any consensus breaks down and MIBOC is faced with a potentially bewildering variety of criticisms.

The problem facing any system of licensing life salesmen is summed op in the evidence submitted by Crown Financial Management.

This points out that the range of potential investment contracts and opportunities e salesman can place before a client is vast. It can range from simple interest-bearing deposits through with-profit contracts and unit-linked investments to individoal group pension plans.

The proposed test of competence would require salesmen to bave a knowledge of all these aspects, although they would oow oeed to be capable of selling all of them.

The danger, according to Crown, is that such e system of testing will result in an unecceptably low level of knowledge across too wide a range of products.

This, says Crown, will not protect the consumer.

The dangers of setting the tests of competence at too low a level are highlighted by several organisations, particularly the British Insurance Brokers' Associatioo and the Pensions Management Institute.

Yet, the Life Insurance Council of the Association of British Insurers—the trade association of insurance companies—warns Miboc that a sudden leap to an over-amhitious scheme could curtail the life assurance market with adverse consequences for insurance companies, salesmen and policyholders.

Mr Mark Weinberg, chairmao of Miboc, said at the time of the issue of the consultative document that there was a safeguard in the code of selling practice which lays down that no person should sell beyond his or her level of competence.

The only problem with this approach is that an iodividual is often a poor jodge of his or her own ahility.

The home service insurance companies — which market directly to the public through ageots calling at the homes of policyholders — feel any licensing system must be flexible enough to meet the underlying needs of particular salesmen.

A warning on this aspect comes from the Building Societies Association, which sets out its interest by stating that ebout 12,000 building society staff sell life assurance —about 12 per cent of the total number of salesmen.

The BSA feels the Miboc proposals could be e sledgehammer cracking e out. It feels it may be necessary to relax the stringency of the scheme, adding it would be possihle at a later date to amend and improve the scheme.

The answer may be, as suggested by Crown, for e system of specialised licenses at an early stage with no attempts to test the complete range. The PMI insists specialisation is essential for marketing pensions.

The Miboc proposals envisage that the training of salesmen should be carried out through in-house schemes approved by the licensing committee and hacked by a central training scheme for those institutions not able to provide such training. However, the testing would be done by an ootside body.

Miboc suggests the Chartered Insurance Institute and the PMI become iovolved in training and testing.

The LIC evidence makes it clear thet life companies would waot to be involved in setting standards and designing the training schedule while the Unit Trust Associatioo has indicated it should be the body involved with unit trust aspects of training.

The BSA is critical of the cost involved in e massive indepth training programme much of which will not be used by the salesmen. It also feels that its own training body should be involved.

Crown would like the testing to be done in-house where facilities are available. However, the general opinion is that, for a scheme to have public acceptance, testing must be done by an independent hody.

The BIBA feels its members are already tested to a sufficient degree and should be eutomatically exempted.

The question of the role of part-time salesmen, including the professions such as eccountants and solicitors, has a varied response.

BIBA takes the view that any person involved—no matter how small the size of that involvement in life assurance—should be licensed. The general view is that where such persons merely introduce the business there is no need for a full licence.

The final point lo the proposals relates to the position of existing salespersons. MIBOC proposes that people with at least 18 months' experience should be exempted from taking the competence test. BIBA considers the period should be three years.

The LIC feels that full-time salesmen operating on the day that the system comes into operation should be exempt and the home services companies are particularly concerned that the system should not deprive existing salesmen of their livelihood.

This suggestion appears to imply a greater concern for the protectioo of salesmen than for protection of investors.

Indeed this criticism is made by the BSA. It points out that exempting existing salespersons from tests would not meet the criticism of Professor Gower of the low level of competence of many intermediaries — at least not until e oew generation of licence holders had replaced the existing salesmen.

It suggests a five-year period for current salesmen to pass the test.

BASE LENDING RATES

ABN Bank	11½%	■ Hambros Bank	11½%
Allied Dunbar & Co	11½%	Heritahle & Gen. Trust	11½%
Allied Irish Bank	11½%	■ Hill Samuel	§11½%
American Express Bk.	11½%	C. Hoare & Co	11½%
Henry Ansbacher	11½%	Hongkong & Shanghai	11½%
Amro Bank	11½%	Johnson Matthey Bkrs.	11½%
Associates Cap. Corp.	12 %	Knowsley & Co Ltd	12 %
Banco de Bilbao	11½%	Lloyds Bank	11½%
Bank Hapoalim	11½%	Edward Manson & Co	12½%
BCCI	11½%	Meghraj & Sons Ltd	11½%
Bank of Ireland	11½%	Midland Bank	11½%
Bank of Cyprus	11½%	■ Morgan Grenfell	11½%
Bank of India	11½%	Mount Credit Corp. Ltd	11½%
Bank of Scotland	11½%	National Bk of Kuwait	11½%
Banque Belge Ltd	11½%	National Giro Bank	11½%
Barclays Bank	11½%	National Westeminster	11½%
Beneficial Trust Ltd	12½%	Northern Bank Ltd	11½%
Brit. Bank of Mid East	11½%	Norwich Gen. Trust	11½%
■ Brown Shipley	11½%	People's Trust	12½%
CL Bank Nederland	11½%	PK Finans. Intl. (UK)	12 %
Canada Permanent	11½%	Provincial Trust Ltd	12½%
Cayzer Ltd	11½%	R. Raphael & Sons	11½%
Cedar Holdings	12 %	Roxburghe Guarantee	12 %
■ Charterhouse Japhet	11½%	Royal Bank of Scotland	11½%
Choulartons**		Royal Trust Co Canada	11½%
Citibank NA	11½%	■ Charterhouse Japhet	11½%
Citibank Savings	¶12½%	Standard Chartered	‖11½%
City Merchants Bank	11½%	TCB	11½%
Clydesdale Bank	11½%	Trustee Savings Bank	11½%
C. E. Coates & Co Ltd	12 %	United Bank of Kuwait	11½%
Comm. Bk. N. East	11½%	United Mizrahi Bank	11½%
Consolidated Credits	11½%	Westpac Banking Corp.	1[illegible]
Continental Trust Ltd	11½%	Whiteway Laidlaw	12 %
*Co-operative Bank	*11½%	Yorkshire Bank	11½%
The Cyprus Popular Bk.	11½%		
Duncan Lawrie	11½%		
E. T. Trust	12 %		
Exeter Trust Ltd	12 %		
Financial & Gen. Sec.	11½%		
First Nat. Fin. Corp.	12½%		
First Nat. Sec. Ltd	12½%		
■ Robert Fleming & Co	11½%		
Robert Fraser & Ptrs	12½%		
Grindlays Bank	‡11½%		
■ Guinness Mahon	11½%		

■ Members of the Accepting Houses Committee.
* 7-day deposits 8.00%. 1-month 8.50%. Top Tier—£2,500+ at 3 months notice 11.25%. At call when £10,000+ remains deposited.
‡ Call deposits £1,000 and over 8.00% gross.
‖ 21-day deposits over £1,000 9.25%.
¶ Mortgage base rate.
** See Provincial Trust Ltd.
§ Demand dep. 8%. Mortgage 13%.

TECHNOLOGY

EDITED BY ALAN CANE

Geostar aims to circle the globe

Peter Marsh reports on rival U.S. plans for extending the scope and range of satellite navigation systems

LORRIES carrying spent nuclear fuel between atomic energy establishments in the U.S. are to be tracked from next year with a novel space-based message system which should improve management and keep a check on accidents.

Westinghouse, which operates the vehicles on behalf of the U.S. Government, has a contract with Goostar, a company in Princeton, New Jersey, which will operate a satellite message service from early in 1986. It will be extended to a navigation system a year later.

Radio signals from a small box of hardware in the road vehicles will be sent to a control station via a transponder on a satellite operated by GTE, tho U.S. telecommunications company, in geostationary orbit 36,000 km above the earth. Tho vehicio is due to enter space on board an Ariane rocket early next year.

The hardware on the lorry could be linked, for instance, to equipment that monitors the condition of cargo to check if it has deteriorated or been tampered with. Such e system should enable Westinghouse managers to monitor the vehicles without asking drivers to call in periodically by telephone or by conventional mobile radio systems.

Over the next few years, Geostar hopes to develop the service to cover not just the U.S. but other parts of the world as well. By tho early 1990s, Mr Peter Wetkins, Geostar'e director of European development, thinks the company could have 6m customers, including individual hikers as well as operators of rail or road fleets, who would be tuning into navigational signals from the heavens.

The service, which could also be used as o satellite-based navigation system for aeroplanes, would compete with the $6bn Global Positioning System, a satellite-navigation network being set up by the U.S. Defence Department, which will also be evailable to civilians. According to Geostar, however, the equipment in its system will be a lot less expensive and so should open up more applications.

In 1987, Geostar plans to have in orbit e second transponder package to follow the one due to enter space next year. Using signals beamed from a lorry or car to both transponders, ground computers will then be able to work out the positions of vehicles linked up by the system.

The service will enahle operators of vehicle fleets to monitor the conditions or cargo and know precisely where they are every minute of the day.

Tho system could also provide e useful anti-theft service for car owners. A radio transceiver built into the bodywork of a vehicle could continually relay messages via spacecraft to e ground station, so warning the owner if the car is moved without permission.

Mr Watkins says that as the service grows during the 1990s, manufacturers of expensive cars will probably incorporate his company's satellite-communication packages in their products as a matter of course, in the same way as they now put in stereo systems.

Geostar also has its sights on helping railway corporations. With Guilford Transportetion, a company which operates railways in the north-eastern U.S., Geostar has set up a joint venture called Railstar to market a rail navigation service. Using the satellite data, Mr Watkins says, this could specify the position of a rail truck to within 1-7 metres and so enable an operator to tell which of two parallel tracks a cargo was on.

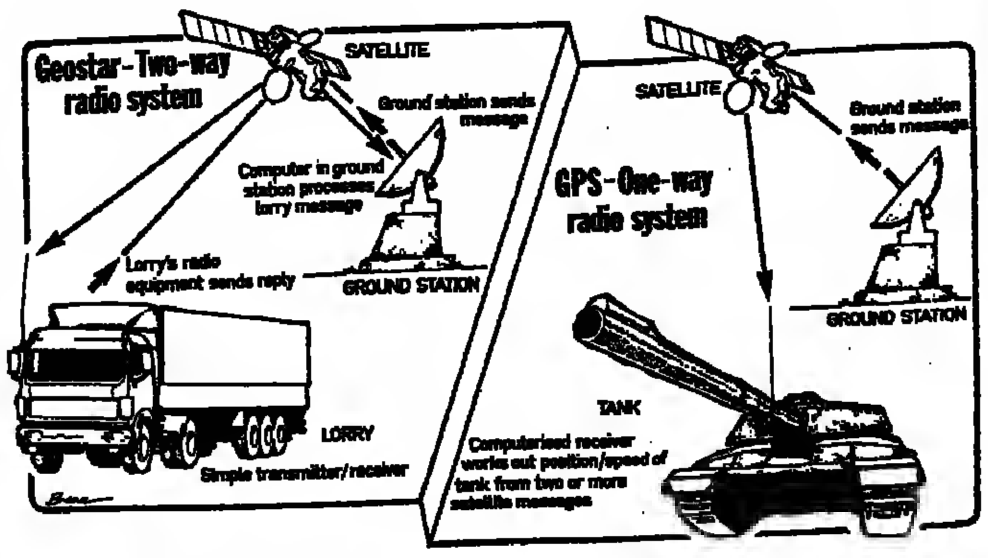
Geostar was founded in 1982 by Dr Gerard O'Noill, a space enthusiast et Princeton University. It was raised $11m from private backers in the U.S. This has enabled the company to conduct experiments with radio navigation, for instance a series of tests using transponders located not on satellites but on mountain tops in the U.S.

Discussions are in hand with large companies on a plan to obtain the further $60m-$80m needed for investment in spacecraft and ground stations later in the 1980s.

According to Geostar'e plans, the two transponder packages which it hopes to have in space by 1987 will be supplemented in 1990 by a purpose-built spacecraft. By 1992 it plans to cover the whole of the U.S. with two geostationary satellites, plus a further orbiting craft which acts as a spare.

The second transponder package — and all the purpose-built satellites — will both transmit and receive messages. A ground station could thus send a burst of digital code to a lorry via the space hardware instructing the package on the vehicle to send a message. So operators would be able to check the position of vehicles at set times during the day.

A stumbling block to Geostar's plans was removed in July when the U.S. Federal Communications Commission set aside two sets of frequencies for use in a new radio-determination satellite service.



The frequencies are in the 1.610-1.626 GHz and 2.483-2.500 GHz bands, supplemented by an allocation in the 5 GHz hand to be used as a communications link between satellites and ground stations.

Geostar's biggest competitor may prove to be the Defence Department's Global Positioning System, which will provide information about position to within 15 metres. The 18-satellite system will be used mostly by soldiers with small satellite communication packs and on tanks, airmen and naval officers.

By a special dispensation, civilians will also be allowed access to the system, though they will lack the secure radio codes which will provide the most precise positional information (this page September 24).

The Geostar and GPS systems use e different approach which should theoretically make user equipment for the former less expensive. In the military system, radio equipment held by a soldier, for instance, will simply tune into messages transmitted from two or more satellites. The hardware, which will not be able to transmit, will use the satellite data to compnte a position with sophisticated electronics.

In the Geostar system, the user's equipment first picks np the satellite signal and then transmits o second message back to the ground station using the satellite as a relay. The ground station, which will incorporate some extremely advanced computers, is responsible for tho processing steps, whilo the user bardware is relatively unsophisticated.

This "one way only" arrangement is forced on the military establishment. Signals from user equipment that are required as part of the position-finding process are anathema. They could provide a source of signals for enemy radio officers and give away the positiona of the other side.

Necessarily, however, GPS hardware will be very expensive. By about 1990, manufacturers are talking ebout a cost of $5,000-$10,000 or so for a GPS user set while Geostar hopes the cost of its equipment will be no more than about $700.

Interpreter monitors energy use

AIMED AT those in industry and commerce who need to monitor energy consumption, a new recording meter from The Response Company, Winchester, can be quickly applied where needed and will give results accurate to 1 per cent.

Called Interpreter, the unit simply clips round the input cables to premises, departments or individual machines and the consumption in kilowatts, together with the power factor, are shown on a liquid crystal display. The units of kilowatt-hours used are seen on a mechanical totaliser display. At the same time, the results are printed out at intervals on a built-in printer.

Interpreter will print as often as once every half hour or as little as once a week. Extra channels on the printer allow data from gas and water meters to be similarly recorded. Interpreter costs £795.

More on 0962 67287.

Asian move to make hepatitis B vaccine

BY STEPHANIE YANCHINSKI

A FLEDGLING biotechnology company in Singapore is working out details of an agreement which could affect tho lives of milions of people throughout Asia. Singapore Biotechnology is negotiating with the U.S. company Merck, Sharp and Dohme, for an exclusive licence to manufacture a genetically engineered vaccine against hepatitis B, a serious form of jaundice which is common in Asia and has been linked to liver cancer.

Singapore Biotechnology's plans also call for the construction of a production plant estimated to cost at least $20m. In 1984 the economic ministers of the Association of tho South-East Asian Nations agreed that such a plant should be set up as an Asean industrial project. This entitled it to financial support from all the Asean countries, and that support took the form of equity investment in Singapore Biotechnology.

Construction was halted when newer methods for manufacturing the vaccine based on genetic engineering looked likely to supersede existing technology, also perfected by Merck, and based on extracting the active principle for the vaccine from infected human blood.

The production of the vaccine is only the latest phase in a massive campaign in Asiatic countries such as Singapore, Japan, China and Taiwan to detect and control the disease through widespread screening programmes and education.

According to the World Health Organisation a cheap, effective vaccine that even the poorer countries can afford is essential to eradicating the disease and tho liver cancer that seems to go with it.

Liver cancer is one of the 10 most common cancers in the world, and one of the most prevalent in the developing countries. A meeting of WHO experts said in 1983 thet "unique opportunities exist for the first time to prevent a frequent cancer with vaccination."

'More than half the world's 315 million carriers of the disease live in the Pacific region'

Hepatitis B is one of a family of liver diseases characterised by severe jaundice. Its early symptoms are fever, chills and generalised weakness, followed by anorexia, nausea and vomiting. It may lead to chronic liver disease, and of these chronic sufferers, 80 per cent develop liver cancer.

More than 315m people carry the disease worldwide and more than half of these live in the Pacific region, providing a large reservoir of infection.

The disease is often passed on by carrier mothers to their newborn child. Studies in China and Jepan show thet injection of a vaccine within 48 hours of birth can prevent the carrier state in over 90 per cent of babies. But such mass immunisation programmes will involve vaccinating millions of infants within the critical first 48 hours of life, and thus large quantities of vaccine.

'The factory will be the first outside Japan to make genetically engineered products in Asia'

Merck already sells an effective vaccine prepared from the infected blood of U.S. donors, but supplies of human blood are limited, and each batch must be tested over many months on chimpanzees which cost US$6,000 each. This makes Merck's product expensive at around US$ 100 a dose, and three are usually needed to complete treatment.

The strategy for making the new vaccine is to insert the gene coding for the active protein principle into the genetic material of yeasts. Tho yeast "host" cells then obey the gene's instructions, and make large quantities of the protein which can be harvested from the cell.

Merck's genetically engineered vaccine Hepvax II is already undergoing clinical trials in centres throughout Europe, the U.S. and South-East Asia, but other companies are in hot pursuit, led by Burroughs Wellcome in Britain, the Swiss-U.S. genetic engineering firm Biogen in collaboration with their Japanese partner, Green Cross, and the Belgian company SKB. Taiwan has signed an agreement with Institut Pasteur Production, the commercial arm of the famous Paris-based research organisation.

Mentor Graphics offers design aid for engineers

MENTOR GRAPHICS, the Oregon-based supplier of computer-aided engineering (CAE) workstations for electronics design, has launched a "hardware accelerator" which greatly speeds up design work.

Called Compute Engine, it is an add-on processor which uses the latest techniques to produce a throughput of up to 10m instructions a second. A normal 32-bit workstation throughput is about one million instructions a second.

Performance on some CAE applications can be 100 times faster, says Mentor. Compute Engine can also be applied to any or all the CAE tasks such as circuit simulation, component placement and track routing. Previous accelerators have been limited to a specific CAE task.

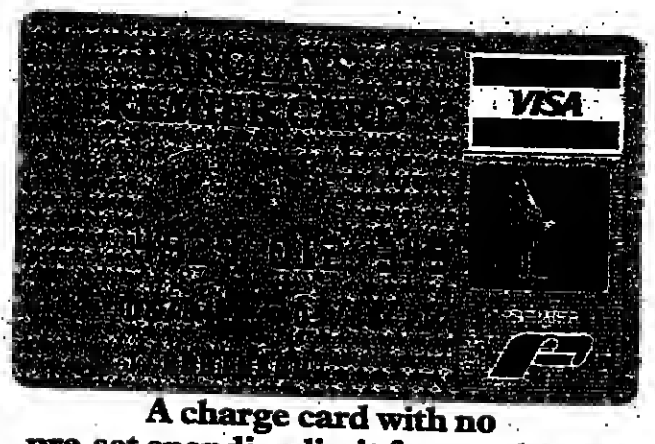
Designs with the complexity of a 32-bit microprocessor (up to 0.5m gates) can be simulated directly on the workstation without invoking a mainframe computer.

In the case of physical layout of the chip, tasks such as design rule checking, placement and routing can be run five to 20 times faster than on the Apollo-based Mentor workstation.

Compute Engine costs £25,800, and consists of a processor and a four megabyte memory board which plug into the Apollo DN 550 and 580 workstations, together with new software. The top end, 20 megabyte version costs £47,900.

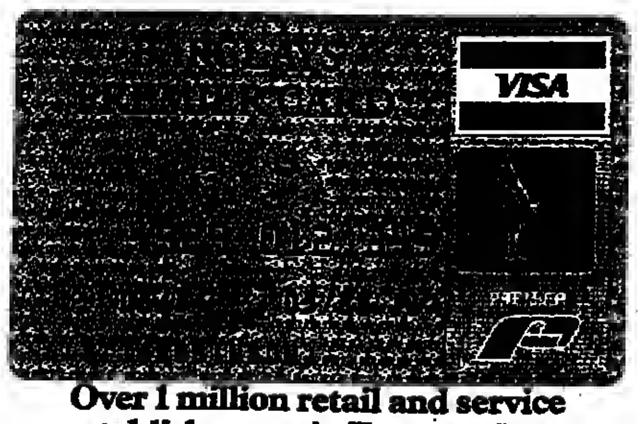
More on 0344 482828.

BARCLAYS PREMIER CARD. IT OFFERS SO MUCH. TO SO FEW.



A charge card with no pre-set spending limit for purchases.

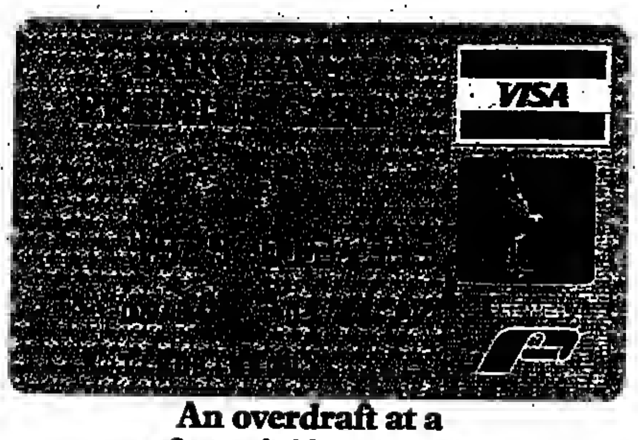
Recognised at over 4.3 million outlets worldwide.



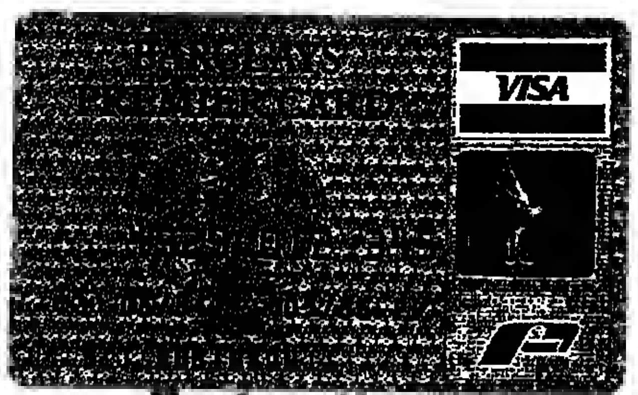
Over 1 million retail and service establishments in Europe alone.

And 230,000 places where you can use it in the UK.

An automatic unsecured overdraft of at least £7,500.

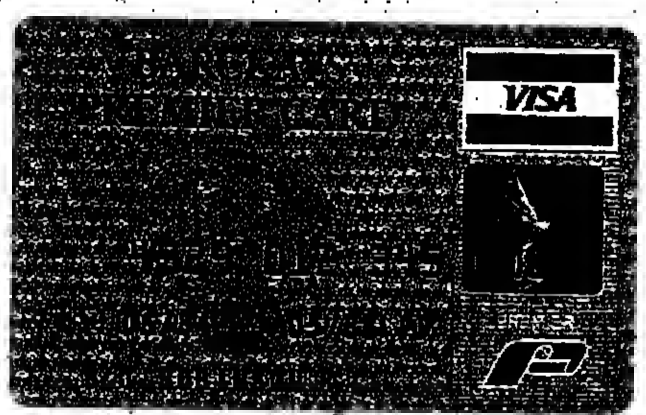


An overdraft at a preferential interest rate.

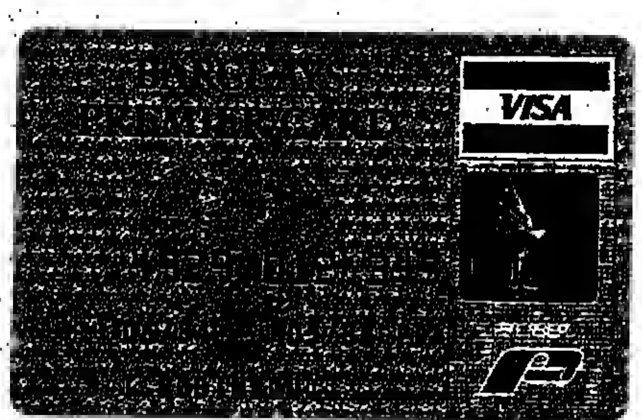


No other gold card is recognised at more banks worldwide.

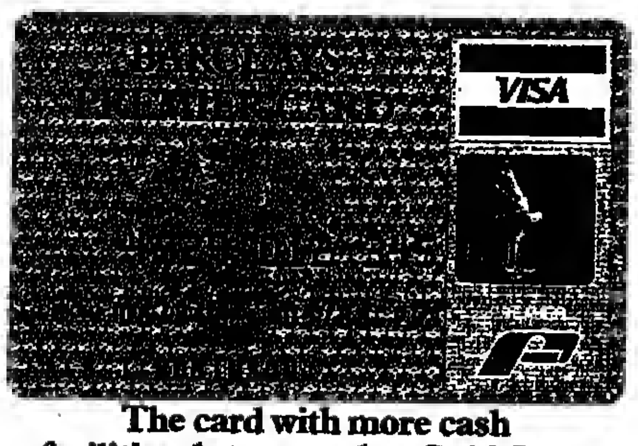
The card that's at home in over 165,000 Visa bank branches.



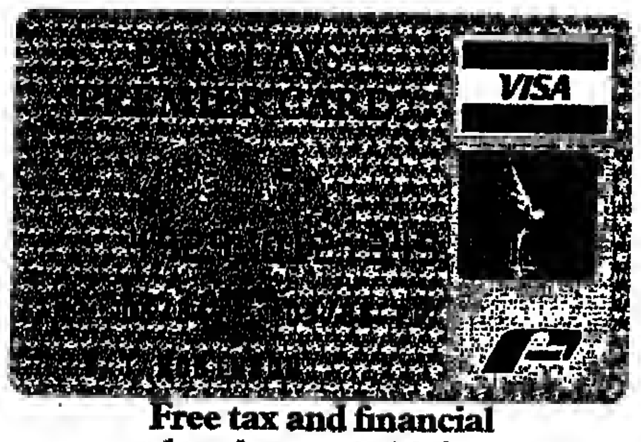
If you lose it, a new card within days.



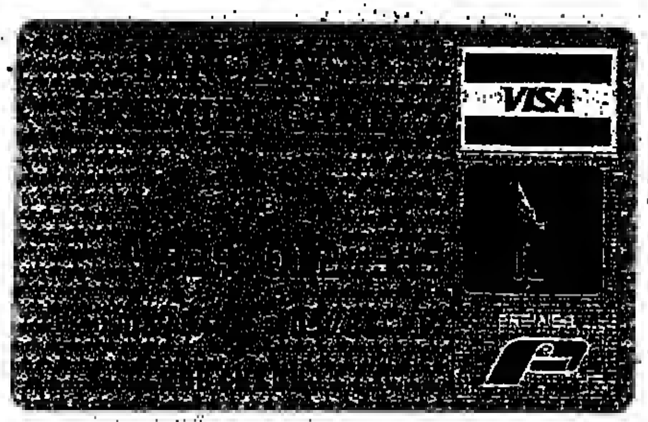
Up to US $5,000* cash facility if you lose the card abroad.



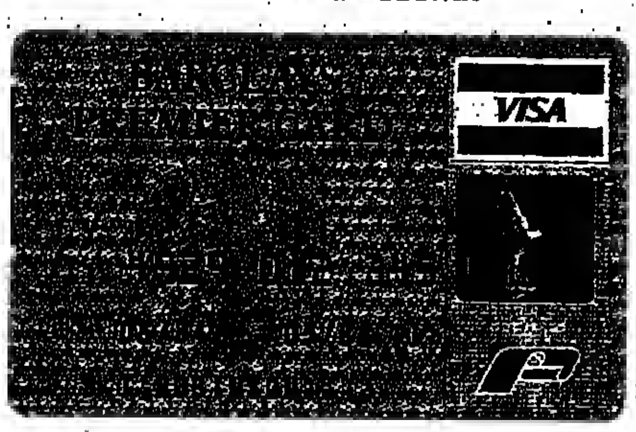
The card with more cash facilities than any other Gold Card.



Free tax and financial planning consultation.



Emergency office facilities in over 60 countries.

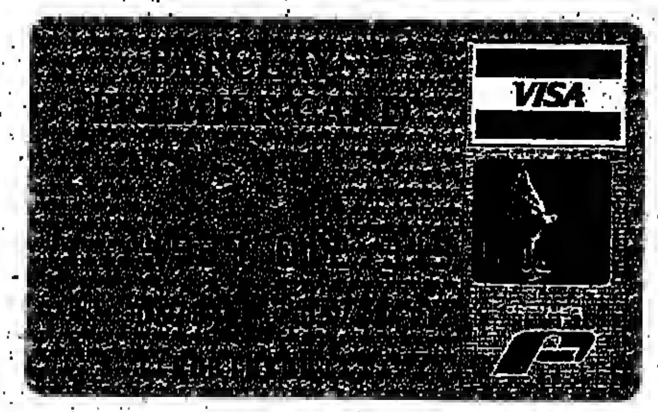


Emergency telephone, telex, copier and postal services.

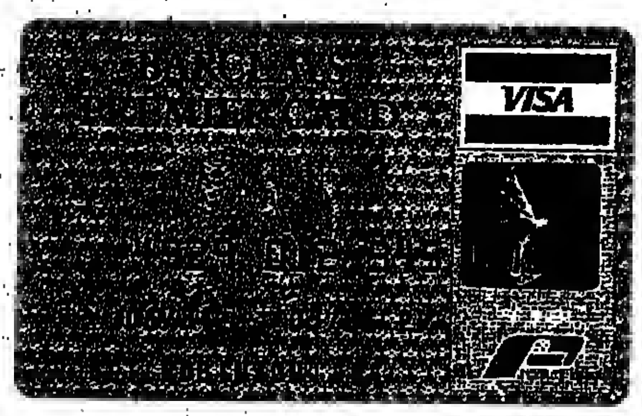
A 24 hour telephone service to pass messages to your Barclays branch.

The card that lets you choose the billing date.

Travellers cheque service for Barclays personal customers.

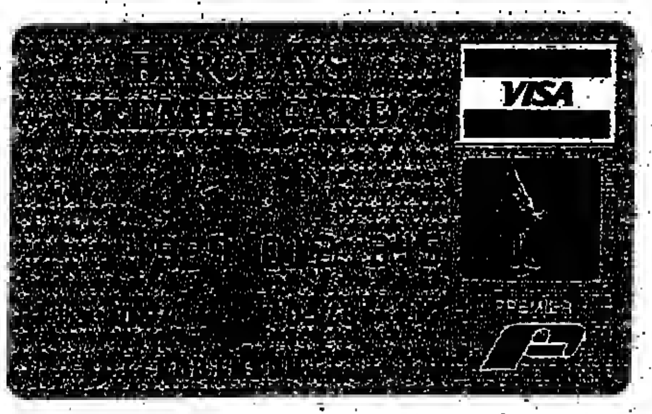


£1,000 worth of travellers cheques at 1 hour's notice at Heathrow.

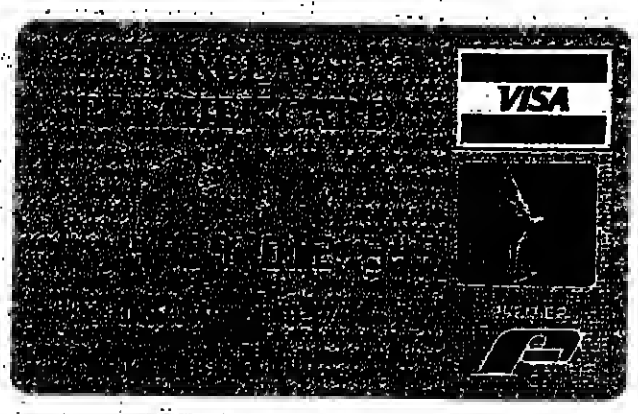


A UK cheque guarantee card.

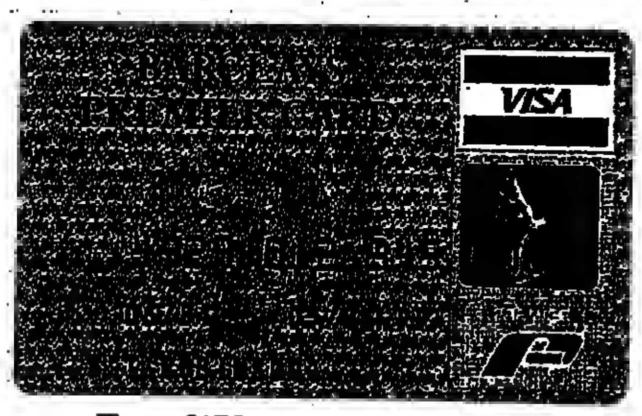
£100 a day from over 4,500 cash dispensers worldwide.



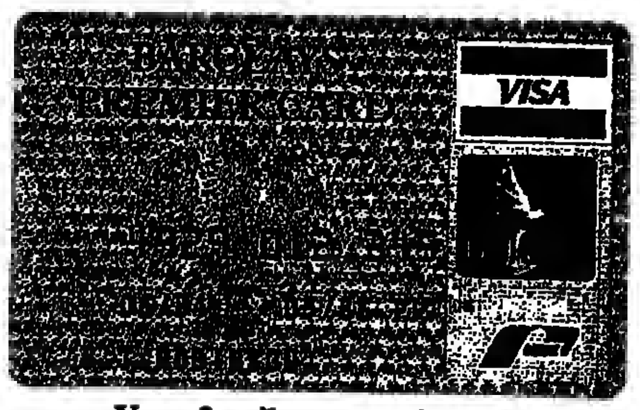
£250 a day with a Barclays cheque at most Barclays branches worldwide.



£250 a day on your card at Visa banks throughout the world.

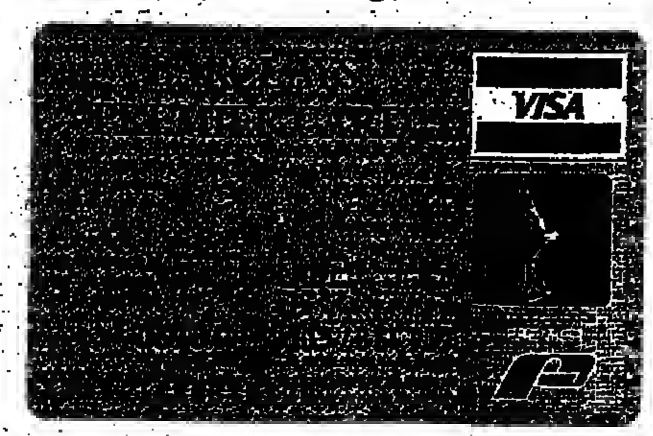


Free £150,000 travel accident insurance when you travel on the card.

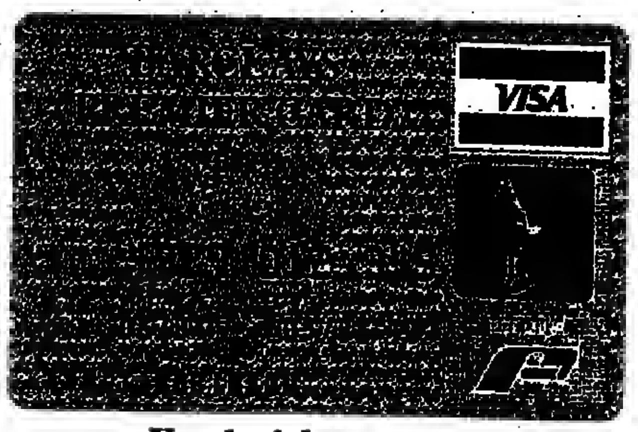


Your family covered too, if their tickets are bought with your card.

You can choose to settle your bill automatically by direct debit.



Additional cards for members of your family.



You don't have to move your bank account to get one.

Ring Northampton (0604) 252761 for details or post the coupon to Barclays Premier Card, Northampton NN1 1TX.

Name

Address

BARCLAYCARD VISA

Only those with incomes of £20,000 or more can qualify

*Available in most countries. Supplied in local currency.

THE MANAGEMENT PAGE

AMONG the price lists for new cars at the back of Britain's popular car magazines and just above the entry for Nissan, the mighty Japanese manufacturer, a new name has recently appeared.

It is Naylor, a little Bradford-based company which has so far confounded those sceptics who believe that few businesses come much tougher and are more susceptible to calamities than car building.

In a former wool-weaving shed, Naylor cars has assembled its first 40 vehicles and put them on the road at the rate of 10 a month. The cars are £14,000 replicas of a famous British marque, the MG TF. Its waiting list, prior to last week's Motorfair at Earls Court, London, where it had two vehicles on show, stretched to three months. After the demise of Jowett in the 1950s and the closure of International Harvester's tractor plant seven years ago Naylor has brought vehicle building back to the West Yorkshire city.

For Alastair Naylor, who ran and still runs an MG repair and restoration business in the city, and the other few men who struggled to raise £1m to put the new company together before production started in earnest six months ago, it has been a joy to see the pretty two seaters with their 1.7 litre Austin-Rover engines on the road.

But as with so many such enterprises the 39 people now working for Naylor must live for the time being et least with the dangers and vulnerability of a fledgling life. Naylor needs to sell 16 cars a month, not 10, as up to now, to break even. The company is too small to justify dual sourcing of components and could therefore be embarrassed by the withdrawal or disappearance of a major supplier. It cannot afford yet to carry more than a month's stock of parts and would have much more peace of mind with a waiting list three times longer.

The Naylor TF 1700 using the A-R 'O' series engine and Ital gearbox with shortened gear lever and with a top speed of little more than 90 mph from its 77 bhp engine is also, arguably, expensive. It certainly has a limited market in Britain with customers so far matching almost exactly the profile the company expected — affluent men in their 40s and 50s buying the ash-frame, steel-skin-bodied car as a second vehicle for themselves rather than their wives.

That is why Naylor is now gearing up for a sustained if small assault on markets abroad. It has its first left-hand-drive model on show at Motorfair. Two orders have already been notched up in Japan where it is just securing type approval and is now type-approved ready for West Germany.

(L to r) Alan Davies, Alastair Naylor and Mark Butterfield: 40 Naylor cars are now on the road

Struggling into second gear

Nick Garnett on the production planning challenges facing a specialist car maker

"We wanted to spread a wide net to prevent the effect of a dip in any one market," says Alan Davies, Naylor's managing director, who joined the company this year from GKN axles in Leeds where he was engineering services manager.

"We are totally satisfied that over all the possible markets excluding North America there is a market for 200 of these cars a year."

Davies excludes North America because for that market the car requires significant engineering changes to the power train for emission control, bumpers and side panels to meet impact standards, and to the petrol tank, which would have to be mounted inboard and forward of the rear axle. At the moment North America will have to wait.

The short story of Naylor reflects two things. One is that a good idea and hard work can attract substantial financial backing to get a rather complicated business off the ground, especially if there is a sympathetic local authority and nearby enterprise board.

The other is that careful planning can always be blown off course by the unexpected. In the case of Naylor this was a leaking roof on its assembly building which required much longer repairs than expected and a major technical problem with the back axle's half shaft which transmits power to the wheels.

Not only did these two problems delay production, but the delay upset relations with some of the smaller component producing jobbing engineers. "We had circulated them with our production schedule and then had to tell them to back off," says Davies.

Naylor also had to hold back Rockwell Thompson, the Midlands fabricator which makes the car's chassis, from fully tooling up for this job until Naylor's problems were ironed out. When Naylor was ready to resume production some of the smaller suppliers could not or were not prepared to agree delivery times.

Subsequently, in an attempt to ensure quality and delivery, about a third of the original suppliers have been replaced. Component producers include Holroyd and Hall for the body, Tonks for the anti-roll bar and Marvik Veneer for the dash.

Coping with these tooling delays meant extra man hours and money tied up in more hand building than Naylor envisaged. The first bumpers, for example, came without the holes punched out to take the indicators.

Production delays also forced on the company changes in the way it expected to fund the business. Alastair Naylor had the idea of assembling a replica of the early 1950s TF back in 1979 not on the back of a basic "donor" vehicle but out of completely new-made parts, from the wire wheels (imported from India) upwards. The Naylor TF 1700 has almost exactly the same dimensions as the original though its track is about 4 inches wider. It comes with indicators, modern door handles and controls, carpet, radio-cassette and mohair hood.

Five founder shareholders, including Mark Butterfield, the 30-year-old deputy managing director, together put in £13,000 to get Naylor Brothers Developments off the ground in 1981. Barclays Bank in Leeds offered a £15,000 overdraft facility.

At the end of 1983 the first major injection of capital arrived with a £30,000 loan from the West Yorkshire Enterprise Board, £50,000 from Leeds-based Capital for Companies and £20,000 from private investors.

As employment built up and three prototypes rolled on to the road the company went public last year, raising £360,000 via an offer of 1.65m 5p shares (though the issue was somewhat under-subscribed by the 100 investors who took shares). This triggered already-negotiated contingent financing —another £120,000 from the supportive enterprise board, £100,000 overdraft from Williams and Glyn's and a £140,000 cheap loan from Bradford Metropolitan Council's economic development unit.

By that time Naylor had bought from the council the 23,000 sq ft assembly building for £80,000 and the council mortgage covered 90 per cent of the building's purchase and refurbishment costs. Dennis Austin, former managing director of Lotus and year-long adviser to Naylor, became a director.

The hiccup caused by technical difficulties and the leaking roof forced the company into raising additional capital this year through a rights issue in which the company also decided to seek more money than it actually needed to bring forward its export development programme. The rights issue raised £240,000.

Naylor is just appointing ten Austin-Rover dealers as sole outlets with a Naylor demonstration model available. The company, though, still has to live with the seasonality of sales for such a vehicle.

How U.S. companies are tightening control of health care costs

BY LOUIS KLEBER

FOR A long time, the emphasis on health care in the United States was on quality. Equipment, techniques and services had to be the best and up-to-the-minute. If one hospital had an incredibly sophisticated scanner, the other felt compelled to keep pace; the same type of "one upmanship" pervaded the ranks of physicians.

If the patient's employer had a health insurance plan that paid costs from the first dollar, it didn't matter to the provider of medical care or the patient just how big the bill was: "someone else paid it." And it certainly was not going to be truly out of the insurance company's own pocket (not for long anyway). Thus, the insurers raised rates to the employer, who passed the cost on to the consumer, and the process kept repeating itself.

Times were good and no one worried that much. Willis Goldbeck, president of the Washington Business Group on Health, which represents over 200 of the country's largest employers, says that health benefits were being given away like cash in an envelope: "Employers did not look in the envelopes."

Then, things changed. Health care costs emerged as a monster with an enormous appetite, growing at a pace far in excess of the rate of inflation. Just a generation ago the health care bill in America was 4.4 per cent of the Gross National Product. Now, it's nearly 11 per cent, and that means about $350bn annually. The cost of a one-day stay in hospital now averages about $510, and hospitals account for 41 per cent of the health care bill.

Health care benefits add $600 to the price of each Chrysler car. According to Joseph Califano, chairman of Chrysler's Health Care Committee and a Washington lawyer: ". . . every time we made up a health care budget at Chrysler, we exceeded it."

Clearly, the reasons for the high U.S. costs are many and complex, but after all tha analyses have been completed, the experts are all left with one over-riding message: something has to be done to reverse the pernicious health care bill.

Something is being done. A revolution is taking place, and its manifestations are having an impact on every facet of the medical scene.

Several companies are involved in the battle to stop the health care cost spiral.

● In Southern California, 175,000 employees from 13 companies, including Rockwell International, are participating in a new health benefit programme ("Met-Elect") that is run by the giant Metropolitan Life Insurance Company. There are about 1,800 physicians and 50 hospitals on the approved list, and the hospitals must pass a stringent cost and quality analysis to become a "preferred provider." Metropolitan predicts a $11.5m annual saving in health care costs for the members. Preferred Provider Organisations (PPOs) are hospitals, physicians and dentists who, as groups, enter into contracts with employers to provide medical care for their employees at preset fees for less than the customary charges. The trade-off is that these medical care groups secure a large patient pool which has a vested interest in using their services to save money. Employers give an assurance that bills will be settled promptly, commonly through a third party such as an insurance company.

Audit

● Errors in hospital bills are far too frequent. The Pillsbury Company tells its employees to keep track of hospital services and treatment so they can audit the bill. When an employee discovers an error that is later corrected, Pillsbury pays that person 50 per cent of the amount deleted from the bill, up to $1,000.

Carson, Pirie, Scott and Company, the Chicago-based department store and restaurant chain, has a similar programme. Shortly after it started, Kathleen Goeppinger, a Carson vice-president, said: "The programme won't save a fortune, but it lets employees know that they are our partners in financing health care." The proportion of companies that check hospital bills jumped from 39 per cent in 1982 to 68 per cent in 1984. One company routinely sends bills back to hospital marked "Returned for correction." In 75 per cent of cases adjustments are made.

● It is generally accepted that non-emergency surgery is often unneccessary. A second professional opinion may favour a different form of treatment, and the knowledge that a second opinion will be given may induce the first physician to give extra thought to the appropriateness of surgery. In the light of this, the Ohio firm of Borden recently initiated a plan for salaried and non-union hourly workers under which full cover is provided for employees who get second, or even third opinions. If they don't, the plan pays only 50 per cent of surgery-related charges. Owens-Illinois reduced the cost for hospital stays by 18 per cent by using this technique.

Programmes such as Borden's also encourage out-patient surgery at far less cost than when the patient goes into hospital. Uniroyal offers a $50 bonus for every employee, dependent and retiree who chooses out-patient treatment for minor surgery. Since January 1984 this Connecticut company has awarded 1,400 bonuses.

● The Kellogg Company is in the vanguard of the growing number of employers energetically communicating health care cost containment principles to employees. "When medical care is needed it is important to know how to shop wisely," states its health newspaper for employees.

Kellogg puts this approach into practical application through a "Patient Advocate Service" that helps employees and their doctors to explore quality care alternatives to hospitalisation. If the employee does not call the service before non-emergency admission, he must pay part of the charges that would otherwise be covered by the Kellogg plan.

● When the Bank of America saw the annual rise in health care cost pass the 20 per cent mark, management decided it was time for action. It increased the deductible amount which employees must pay, specified 40 surgical procedures that generally had to be performed on an outpatient basis and required second surgical opinions. The result of these and other cost containment measures held the 1984 health care bill to little or no increase.

Goodyear Tire and Rubber adopted a similar philosophy about employees picking up more of the bill. Robert Mercer, chairman and chief executive says that it makes employees "think twice about when and where they go for medical care." The pace of health cost increase was halved. Such action reflects the trend.

A recent study by the consulting firm of Hewitt Associates revealed that the possibility of making deductions from employees' pay existed in only 17 per cent of company plans as recently as 1982. By 1984, the percentage had jumped to 52 per cent.

Self-funding

Home health care is growing in popularity since it can halve the hospital cost for services such as intravenous feeding, "wellness" programmes to keep employees healthy are flourishing, employers are turning to some type of self-funding for their medical programmes, unions are accepting the realities of health care cost and often co-operating with management; these are all part of a phalanx of techniques thrown into the battle against health care cost.

Summing it up, Americans are generally pleased with the quality of care they are receiving. It is not health, but cost that is behind the current revolution. One recent estimate showed the annual per person cost for health care to be: U.S. —$1,500; West Germany—$900; France—$800; and Great Britain —$400.

The subject of health care cost is not one to be ignored in other countries. Even more significant than some of the conceptual aspects are the practical realities of expense for American subsidiaries of major European, Japanese and other parent companies, many with thousands of American employees. Are they dealing effectively with the problem? That is a good question for senior parent company management as well as local U.S. management.

Louis Kleber is vice president of Advance Retirement Systems, California.

Contracts & Tenders

Company Notices

Holidays and Travel

Clubs

FT REGIONAL REPORT

MILTON KEYNES

A key factor in achieving balanced growth in the new town has been the development corporation. Its proposed winding down has brought fears that the growth may be weakened

AROUND BRITAIN

Ordered urban growth

Report by LORNE BARLING

MILTON KEYNES, one of Britain's most successful new towns generates strong and often opposed feelings. But as the pieces of the giant jigsaw have fallen into place, there is growing agreement that it has become more and more attractive as a place to live.

It is, for example, now taking on many of the hetter characteristics of American towns, particularly its grid system of roads which provide quick and easy access to most areas.

The vacant spaces, which were a major source of earlier criticism, are now disappearing and the integrity of the design is becoming an important asset.

The powers held by the development comporation have led to far more ordered urban growth than could have been achieved in any other way, at the same time providing relatively low-risk opportunities for private sector building.

Designated in 1967, with work starting four years later Milton Keynes remains only about half way to completion.

The pace of growth has, nevertheless, been startling and the outlook for future development is excellent. However, the strength of Milton Keynes—the sense of direction it gets from the backing of Government funds — are now under threat from the proposed winding down of its development corporation along with those of Britain's other new towns.

With the Government in the shape of Mr Michael Heseltine, then Environment Secretary, announcing in 1981 that the corporation should disappear by the end of the decade, supporters of the Milton Keynes corporation have been lobbying hard to have its life extended until 1995.

The officers of the corporation, as agents of the Department of the Environment, are strong supporters of such an extension arguing that they need time to achieve "substantial completion of the task," a phrase used in the New Towns Act.

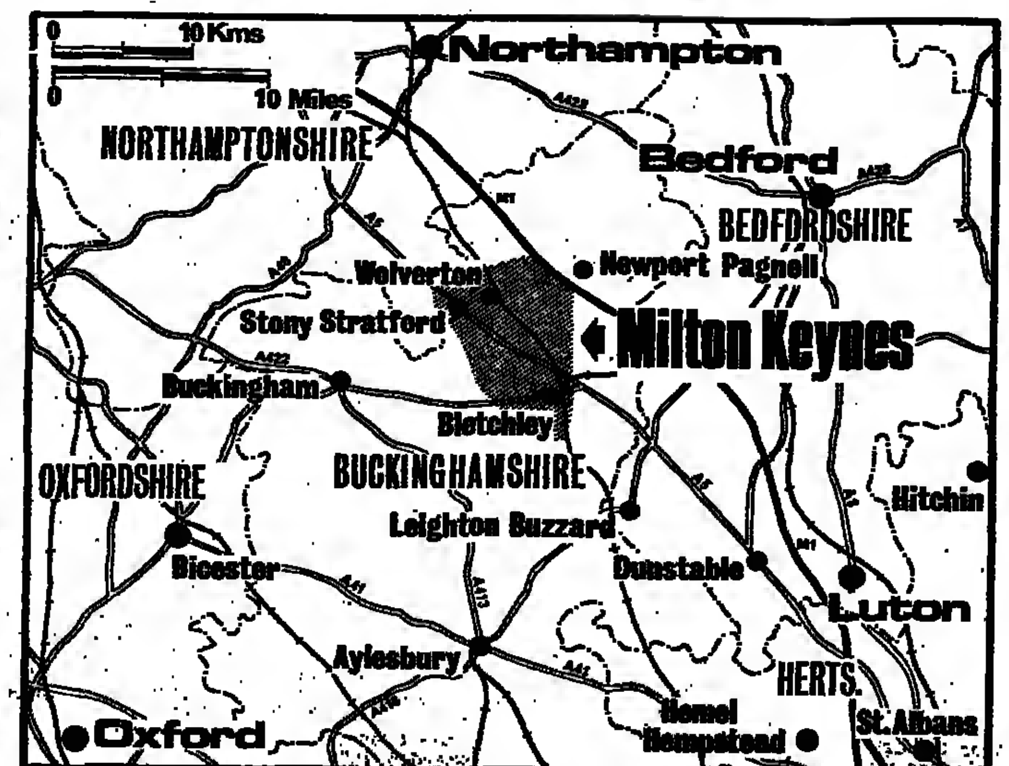
Doubts

Overall, the objective of the senior executives of the corporation is to create a "viable city" which will continue to flourish under its own momentum after the corporation is wound up.

Mr Frank Henshaw, general manager of the corporation, is doubtful whether this could be sustained if 1989 is named as the date for the demise of the corporation. This would have a detrimental effect on private sector investment and overall confidence, he argues.

He points out that confidence created by the corporation has been a major factor in the overall development of Milton Keynes—"the private housebuilder has always been reassured by the fact that we have been attracting people to buy those houses, and factory owners know that we are creating industrial infrastructure.

Equally, it had been important for the corporation to



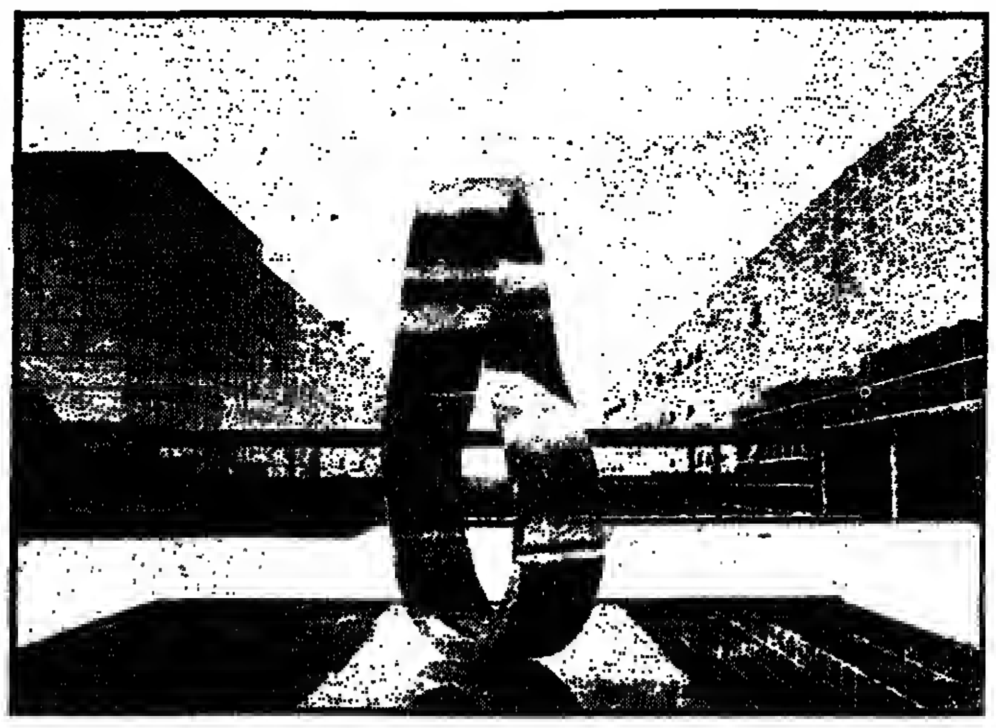
achieve its targets and thereby gain the confidence of the public utility authorities, such as British Telecom, British Rail, the electricity boards and water boards.

These and other organisations had to be persuaded that there was going to be a need, based on population growth and other factors, for them to invest heavily to provide these services. Mr Henshaw believes that the corporation has been successful in achieving this.

To date private sector investment of about £1bn, at today's values, are calculated to have taken place in Milton Keynes, compared with about £500m in public investment, not only from the Treasury, but from local authorities, health and other public funding sources.

Mr Henshaw believes that far less public spending over the next 10 years would generate private investment of around £2bn, making it a highly worthwhile use of public funds. In addition, he believes it would avoid the serious threat of the local authority inheriting an incomplete and expensive-to-run city.

It is accepted that the recent New Towns Urban Development Corporations Act was important in creating a new and more liberal financing structure, and even more important in sweeping away the system which imposed high fixed interest rates, which reached 17.25 per cent in the 1970s, on development corporation borrowing.



Offices in the centre of Milton Keynes. Left is Ashton House and right, Norfolk House

While effectively allowing some of this debt to be written off, it imposed a more commercial regime—for example, requiring commercial returns to be achieved on investment in industrial or office property.

The recent ministerial changes, as well as the Government's need to consider its actions in electoral terms, are expected to have a bearing on the wind-up decision.

Third complete

It is estimated that that additional period would take the city forward to the stage of heing ahont 80 per cent complete, and perhaps most important of all the arguments, it would make it a more efficient urhan area to run.

This is because almost every aspect of development, from the provision of health services, schools, transport and pnblic amenities, has heen geared to a target population of around 210,000 and until that figure is achieved, efficient use of resources will not be achieved.

The central or "downtown" area of the city is now only about 30 per cent complete, partly because the provision of office space was not a priority. Now this has changed and although office development is going ahead fast, not more than 50 per cent of this area is expected to be complete hy 1989.

By 1995, howtver, this figure would have riser to 70 per cent, achieving the kind of employment balance that has been planned all along. One problem, which could never he overcome, was the phasing of developmeot so as to achieve the necessary balance.

For example, until the railway station in the central area was complete, office development was unlikely to he a very attractive proposition, since the need for access to London was important. Equally, the railway station could not be justified until there was sufficient demand from Milton Keynes as a whole.

At this stage in the city's development, it is seen as vitally important to win and maintain the confidence of institutional investors in office property, since they have so much to contribute to the completion of the central areas.

Innovative schemes such as the Central Business Exchange, which has the backing of the Shell Pensions Trust, are regarded as the vanguard of sustained office investment over a considerable period.

As in other new towns, a key factor is achieving rapid and balanced development has been the power wielded by the development corporation, covering planning, land acquisition and funding. One of the major fears is that a local authority taking over from the corporation, stripped of these powers, would not have the ability to push ahead to complete the task.

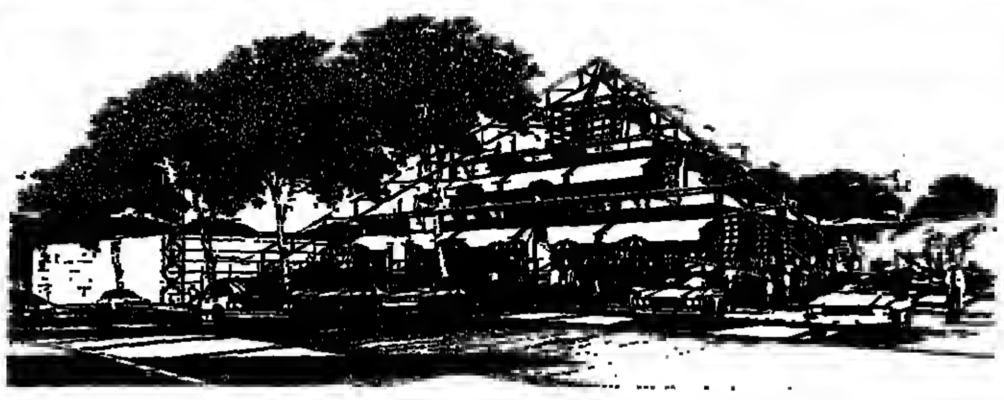
In addition, there are a numher of awkward loose ends, such as the considerahle amount of land now held by the development corporation. There remains a large question mark over who should take over the ownership and administration of this land.

Overall Milton Keynes' case being granted a further 10 years development corporation status appears strong. Among the many arguments for this, probably the most valid is that for a relatively small additional investment by Government, a large amount of private capital investment will be generated.

Private investment is already flowing into Milton Keynes at a steady pace however, and it can be argued that further "pump priming" is unnecessary.

Whatever the outcome, it is unlikely that Milton Keynes will be placed in jeopardy in any way, since so much has been invested in its success that it has an international reputation, a solid base of diverse manufacturing and service activities, and a strong growth momentum.

MILTON KEYNES 2



Above: new homes in the village of Shipton.
Left, a model of "The Point" entertainment centre.
Right is a model of the Central Business Exchange (CBX). This £40m project will include four buildings around a central landscaped courtyard, containing offices, a 140-bedroom hotel, retail outlets and a leisure centre.

Successful balancing act between housing, public amenities and new jobs

Hope for new boom in office construction

Development prospects

THE GROWTH record of Milton Keynes since designation in 1967 is an impressive one: nearly 40,000 new jobs, 33,000 new houses built and a population increase of more than 80,000 to over 120,000.

The scale and pace of this development, unprecedented in the United Kingdom, has been based largely on the use of private and public funds, but has involved a vitally important balancing act in bringing forward the availability of housing, public amenities and other services at the same pace as jobs were being created.

Growth in Milton Keynes has traditionally been employment led, with the development corporation playing a key part in providing suitable industrial and commercial premises, while at the same time publicising and promoting itself in the UK and ebroad.

Last year, to March 31, was a highly successful one for the city but not untypical. More than 3,900 new jobs were created, about 7,500 people arrived and nearly 3,000 houses were completed, illustrating that balance is still a priority.

In housing development, completions are now fairly accurately on target, road construction is ahead of schedule, while city centre development is slightly behind though now catching up. In parallel with all this, manufacturing companies, property developers, housebuilders, major retailers and service industries have led in private sector development.

However, it now appears that a new stage of development has been reached, with a number of prestige private sector projects being undertaken. The most important of these is probably the Central Business Exchange (CBX), an innovative development which could spark off a boom in office construction.

£40m project

Unioue in Britain, CBX is part of an integrated group of buildings offering both business and leisure facilities, situated on Avebury Boulevard in central Milton Keynes. The £40m project is now under construction and the first phase will offer 128,500 sq ft of offices and 24,600 sq ft of retail space.

This will be one of four buildings constructed around a central landscaped courtyard. The others will be the Winter Garden, a dramatic building made predominantly of glass with a glazed canopy roof sweeping to the ground.

Inside, terraced landscaped gardens containing exotic plants and trees, with pools and waterfalls, created an unusual background for a wide range of leisure facilities. These inclnde a swimming pool, restaurants, sports facilities and a night club.

The third building will be a high specification, air-conditioned office block providing 136,00 0sq ft of space on six levels, which is to be marketed as a prestige headquarters building for a major British or international company.

The fourth side of the square will be completed by a 140-bedroomed Trusthouse Forte hotel, which the planners believe will help create a highly integrated business centre, with almost every facility which could be required.

Nearby, an architecturally novel entertainment centre, called The Point, which will include the first purpose-built 10-screen cinema complex in the country, is nearing completion. It will be run jointly by Bass Leisure and AMC (American Multi-Cinema) and also contain bars, a restaurant and night-club. Plans are now under discussion for a theatre and cultural centre.

A third but somewhat different aspect of development in Milton Keynes is its commitment to a 200-acre area of the city designated as an energy park. It is the first of its kind in the world, and will include employment areas and housing with strong emphasis on the efficient use of energy.

The area will eventlly house 3,100 people and provide employment for about 2,000, while the planning ability of the development corporation has given the opportunity for a unique experiment, with funding largely from private investment.

Curbing energy costs

A major objective is to assist residents and businesses to reduce their energy costs with the support of Government departments, local authorities and energy utilities; many of which are eager to try new schemes in such a controlled environment.

In planning, maximum use will be made of solar energy and landscaping to improve the local microclimate, such as by providing wind shelter for housing areas. All buildings in the park will be required to meet an energy performance standard, based on the anticipated level of fuel running costs.

The use of efficient heating systems will be encouraged, with mains gas and electricity available to all buildings in the park. New systems for supplying energy to groups of buildings, such as heat pumps and small combined heat and power (CHP) systems will be used where justified.

The £100m energy park was officially opened in February this year by Mr Peter Walker, Secretary of State for Energy and is expected to become an international showpiece for the efficient use of energy. The first 50 low-energy houses for the show village will be open in late summer next year.

These projects are a clear illustration thet Milton Keynes is now able to attract investment not only in the standard amenities but in some of the more innovative ideas which are suited to the relatively controlled environment of Milton Keynes.

The energy park has received enthusiastic support from the European Community through its Directorate General for Energy, through which grants for solar energy demonstration systems are being provided for Milton Keynes projects.

Dr Keith Jowels, who works on this solar energy programme, said that the energy park was important since it required private builders not only to meet energy objectives, but to do so on an economic basis.

EEC grants of up to 40 per cent were available for the installation of solar panels and monitoring equipment which could be used for demonstration purposes, he said. Two projects et Milton Keynes were receiving EEC grants, one relating to highly insulated houses, and another on the use of passive solar energy.

Mistakes avoided

Overall, the development of Milton Keynes has so far avoided the mistakes others have made. There are no high-rise buildings, very little 'drab concrete' and the large estates have been varied in style and building materials. Landscaping has been of a high standard.

For these reasons, the prospects for future development now seem to be excellent, particularly in areas such as information technology, since it has such a high concentration of high technology companies.

Milton Keynes is one of the first locations to be served by Mercury's new telecommunications services, with a fibre optic trunk network linking it to London, Birmingham and other business centres.

Variety of clean-collar activities points to future trend

Information technology a prime growth area

Service industries

THE GROWING proportion of "service industries" in a modern urban area like Milton Keynes may be an indication of that shape of things to come in Britain, and suggests big changes in our industrial cities.

Office development, largely to accommodate activities such as insurance, accountancy, banking, design and communications actitvities, is now picking up fast and these operations will certainly spawn additional service needs.

Information technology has been a prime growth area, encouraged by the development corporation, which has seen the considerable advantages in providing companies with the most up to date communications systems.

Milton Keynes will be one of the first urban areas to be served by British Telecom's System X digital telephone exchange system, with its introduction scheduled for late this year and early 1986, while the "alternative" communications systems operated by Mercury is already operating.

The local cable television system has been expanded by BT, with four new channels now available on subscription. Two extra services are being provided free of charge, one offering local news, information and advertising. Community viewdata started in July last year.

Financial advice

As part of the drive for business growth in Milton Keynes, companies in the financial services sector, such as banks and accountants, have had to involve themselves quite closely with a number of local initiates, such as Business Venture, offering advice and secondment of staff in some cases.

Accountants Peat Matwick opened an office in Milton Keynes in late 1980 and in five years this has a staff of four partners and 70 staff, reflecting the growth of financial services in the area.

A spokesman said: "The professional and financial services sector has built up a wide range of services including accountancy, commercial legal services, insurance, pensions planning and chartered surveying.

"Until recently these services were geared only to the consumer, while the corporate market was serviced by firms outside the area. This situation has now changed radically."

Clearing banks have also played an important role in assisting business development, and Midland Bank is to launch an important experimental scheme in Milton Keynes later this year on behalf of the clearers.

It is part of the scheme to develop a national electronic funds transfer at point-of-sale network, and the Speedline experimental system is now being installed locally. About 30 terminals are being placed at a variety of leading retail shops, and the scheme will run for about two years.

The system allows shoppers to pay for their purchase with a plastic card, which is wiped through a card reader and the customer provides a personal number. The cost of the goods purchased is transferred automatically from the customer's account to the retailer's.

One of the largest employers in Milton Keynes is the Open University, which was established there in 1969 and made a world-wide reputation for itself as a leader in the techniques of "distant learning." It has 120,000 students, making it the largest university in the country, and around 2,000 staff in Milton Keynes, including 450 academics.

In addition to its degree courses, OU is offering an increasing variety of short, non-degree courses, and is also concentrating on business requirements. A number of management courses are offered, as are courses aimed at updating students on technology in business and industry.

Buckingham University, the country's only independent university empowered to grant degrees, is also near Milton Keynes, offering undergraduate and postgraduate courses in several business related disciplines.

One major gap in the services offered in Milton Keynes has been the lack of an international standard hotel, and negotiations have recently been concluded between the development corporation and Trust house Forte for the construction of a four-star hotel as part of the CBX project, representing an investment of some £6m. Local architects Conran Roche have been selected to carry out the specialist design, and Robert Marriott has been awarded the construction contract.

The five-story building will include a 150-seat conference room, capable of being split into smaller areas, and syndicate roms for smaller meetings and seminars.

Building design

Professional services related to the construction industry have naturally grown fast in Milton Keynes, due to the fast pace of building and general development, one of the most notable being Interdec Design Group, which specialises in building design, detailed office space planning, fitting out and furnishing.

Formed in 1972, the company is now publicly quoted and has been closely involved in the relocation of many companies to Milton Keynes. There is little doubt that in terms of cost savings alone, the use of a specialist concern such as this has its adwanages.

The group was founded by Mr Simon Miller, who has worked closely with the development corporation on a number of projects, including their own prestige office buildings at Saxon Court. The group has also carried out work for Rothmans (UK), VW Audi, Levi Strauss (UK), Legal and General Assurance and Monsanto.

A number of senior development corporation staff have recently moved to Interdec's Property Design Group, which was founded for companies moving to Milton Keynes, and operates as a consultancy. It offers a full service covering architects, surveyors, space planners, electrical engineers and interior designers, working as a team.

"Office environments are continually changing to respond and keep pace with advancing information technology, Mr Miller said, adding that there was an increasing need for this kind of work in the city.

The need for business communications has also led to a rapid growth in public relations and advertising agencies, which face the continual battle to persuade companies that they can be as good as London-based competitors, with the advantage that they are on the doorstep.

Epigram Associates, e communications consultancy, has drawn together an experienced team with wide experience, is well-placed to compete on these terms, and has won a number of important local contracts, including that of Interdec.

A service of a quite different kind is being offered through the Douglas Bader foundation, which has chosen Milton Keynes for the development of a £10m rehabilitation centre for amputees. An appeal for this purpose has now been launched by the Reading-based foundation. Facilities will include a swimming pool, sports hall, medical centre, golf range and administration building.

These high quality flexible-use premises set in low density landscaped environment for companies at the forefront of technology are at Linford Wood.

More than 150 foreign companies provide nearly 6,000 jobs

Healthy diversity of products on broad investment base

Industry

THE INDUSTRIAL and commercial base of a city like Milton Keynes has many built-in advantages, and a few slight drawbacks, but on balance it would appear to be an enviable wealth-creating platform.

Without the liability of labour intensive, mature industries which are causing so many redundancies in other parts of the country, Milton Keynes is relatively safe from the kind of disastrous unemployment experienced in nearby Corby.

It also has the advantage of a broad base of investment, since an increasingly high proportion of local companies are foreign-owned, and a healthy base of diversity. These factors should ensure that the effects of domestic economic slump, or sectoral downturn, would be minimised.

However, the high technology industries bring some dangers as well as advantages, as has been seen with the recent fall in home computer sales and the general decline in electronics profits. High technology often means rapidly-changing technology, and unexpected cutbacks.

Last year saw a net increase of 4,000 jobs in Milton Keynes, the highest annual growth since designation, and firm commitments made by companies during the year should bring a further 4,000 jobs this year.

There are now more than 60 North American companies, 33 Scandinavian and about 40 Continental European companies in Milton Keynes, and Japan, with more than a dozen local concerns, has recently been recognised as a potentially large investor. The total of more than 150 foreign companies now provides about 10 per cent of the city's 58,000 jobs.

Recent property disposals to companies such as ICI (Electronics Division), Monsanto, Prime Computer and Sperry, are in themselves an important recommendation for Milton Keynes, since many relocation decisions are based partly on what other companies are doing.

Another advantage of the city's concentration of high-technology and foreign companies, is that many are likely to expand, and if they do so it will probably be locally. Such expansion has recently been undertaken by Ackermann Electrical Systems, Dafoe and Dafoe, Isringhausen (GB) and Snuggledown of Norway, and in the longer term this type of growth is likely to be as important as new arrivals.

New premises

Purpose-built premises on development corporation sites have recently been built by three American companies, Monsanto, WD40 and Microwave Associates, and by three Japanese concerns, Alps Electric, Mori Seiki and Hitachi Power Tools which agreed to develop new premises over a five-year period. Coca-Cola plans to invest a further £6m in its plant at Northfield.

On average, three new companies are established in Milton Keynes every week, according to the corporation, and about 10m sq ft of industrial floorspace have been built since designation.

The level of private investment has grown steadily, according to a background paper on the future role of private investors prepared by the corporation. It points out that more than £125m came from this source in the past financial year, bringing the cumulative total from the private sector to £1.1bn.

"Against this, the corporation's own investment of public funds has steadily decreased and this year in net terms will be £4m," the paper adds.

"In the early days, most industrial units were built for speculative letting funded by the Treasury. These advance factory units still form an important part of the industrial programme, but increasingly they are funded by private investment," it says.

The marketing of Milton Keynes is still regarded as a vital function, perhaps the most important role of the development corporation, since private funds are essential to complete the development programme by direct investment and the sale of sites to other developers.

Marketing strategy has been developed to "sell" the city as a thriving, modern urban area with the advantages of a rural environment, a city where varied lifestyles can be satisfied. Heavy spending on advertising is justified by the number of jobs it attracts, the corporation believes, and it is particularly necessary in view of the strong competition from other UK business centres.

In the past few years budget cuts have made the corporation more aware of the need to spend effectively in all spheres, and more innovative financial schemes have been brought into use. Fortunately this has come at a time when industry and institutions are becoming more receptive about Milton Keynes.

Emphasis on training

A number of other factors have come to the forefront recently, namely the need to promote the use of high technology, in conjunction with increased emphasis on training, and the need to encourage and support the development of small businesses.

High technology is of course present in most local industries, and its promotion on a broad front is difficult. However, a major benefit in these terms is the present just outside Milton Keynes of the Cranfield Institute of Technology, which is responsible for about 50 per cent of the UK's commercial applied research at universities.

The presence of the country's premier source of new industrial technology should be an attractive proposition, since almost every aspect of business, from management to hardware, is dealt with at Cranfield.

However, it has been necessary to focus more positively on local companies, and the school of management has announced three new programmes for them. These courses have been devised by Mr Peter Saunders, newly appointed to Cranfield's small business team and with special responsibility for developing local business links.

Cranfield School of Management is one of Europe's largest and most innovative university business schools, with 240 part and full-time postgraduate students studying for MBA degrees. Each year some 2,000 managers are sponsored by their companies to attend general management programmes, special short courses and in-company programmes.

The school has just completed recruitment for its English Graduate Enterprise Programme, selecting 40 "student entrepreneurs" from colleges throughout the country. The new courses for local firms are aimed at practical aspects of business, such as company growth, management development and dealing with redundancies.

The interests of small companies are also promoted by Milton Keynes Business Venture, a joint undertaking between public and private sector, backed by the county council, borough council, the development corporation and 48 private sources, mainly local companies.

In addition to an advisory service, its offers workshop space at favourable rates at its industrial development centre at Kiln Farm, where a 20,000 sq ft factory has been converted for the purpose. For example, a special rate for unemployed starters is £1.75 a sq ft, and central services range from secretarial work to fork lift trucks.

Similarly, a complete office building has been converted for similar purposes, and this is now occupied by about 40 businesses and all rents are below normal commercial rates. About one-third of those helped by the venture are unemployed, and counselling is offered by professionals seconded from local companies.

"We have had a success rate of about 90 per cent in the sense that that proportion of new ventures are still going. One of our main objectives is to train people in management skills and get them through the first 12 months," a spokesman says, adding that 550 new jobs have been created.

Venture also operates a capital fund, lending up to £2,500 at commercial rates but only to applicants who have been refused loans from other sources owing to lack of security but nevertheless have a potentially viable project. A number of small firms have been set up locally to take advantage of this aid.

Growth prospects

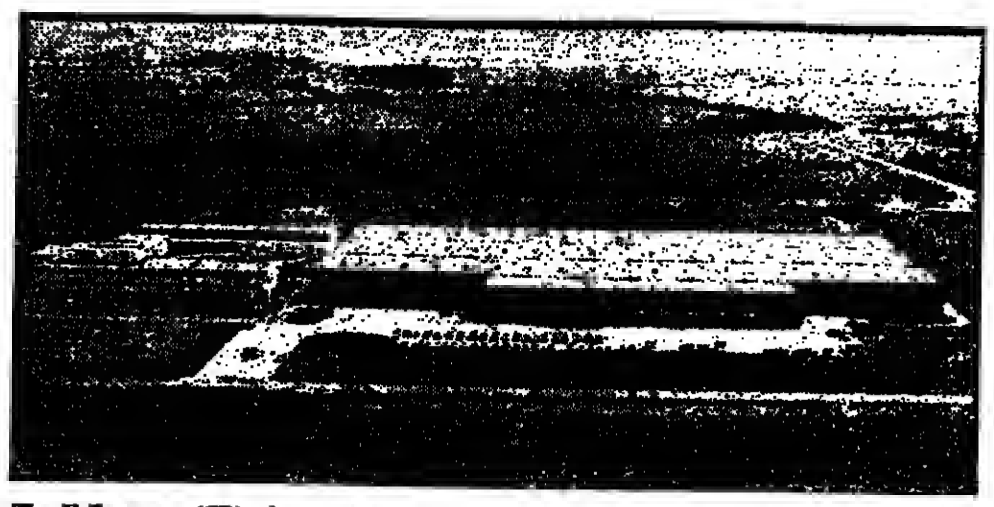
Above all, the future success of Milton Keynes appears to rest on the growth prospects of existing companies, among which are some solid household names, and some more exotic sounding high technology concerns.

One of the most important local employers is GEC Avionics, a GEC division which develops and makes airborne interception radar systems, one of the most notable being Foxhunter for the new RAF Tornado interceptor. It is the largest company of its type in Europe, employing about 725 people.

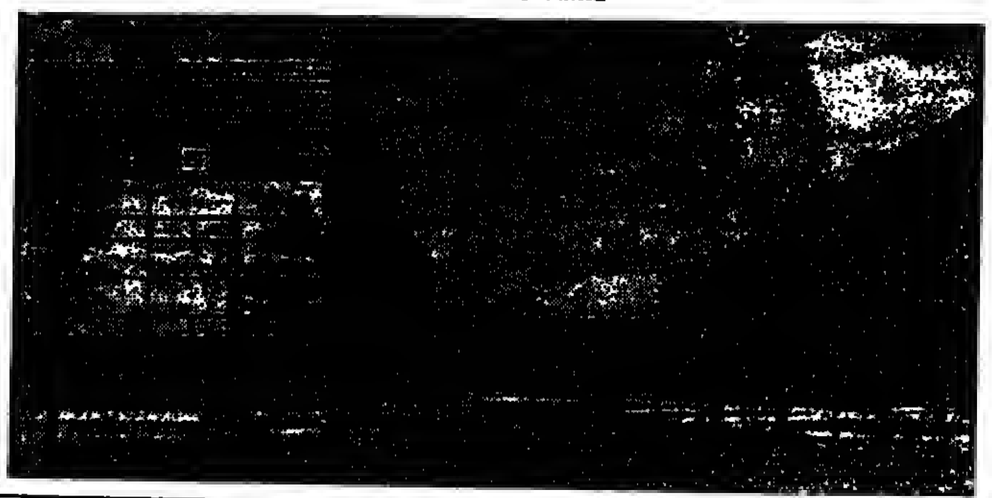
Some of the notable companies present include Coca-Cola, VW Audi, Burroughs Machines, Mercedes Benz, Minolta and Marconi, while the more recent arrivals include the U.S. computer company Compuware Corporation. Prime Computer is building a new R and D headquarters at Willen Lake.

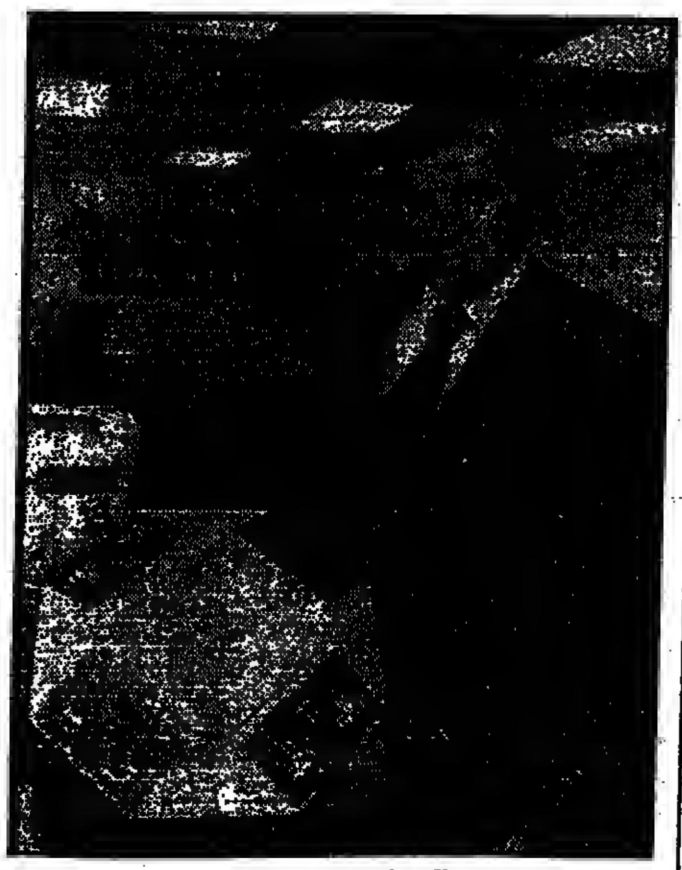
Other important names include Hoechst UK, Aston Martin Lagonda, Ashton-Tate, the successful U.S. software company, and Peridom, the fast-growing visual display unit manufacturer. In the field of robotics, the area is strong, backed by the Cranfield Robotics and Automation Group. It offers a robotics degree course, the first of its kind in Europe.

The robotics and automation companies are Scicon, a BP subsidiary, Asea (Europe's largest manufacturer of industrial robots), Babcock Fata, Reis Robots, VS Remek and Robot City Technology.



The Volkswagen (GB) plant at Milton Keynes and, below, corner view of Advance Factory Units at Northfield





David Pugh, Ackermann UK managing director: from a one-man office in Milton Keynes to a major manufacturing plant with wide-ranging UK and export work within five years. He is demonstrating the newly-developed Technology Tile, designed for IBM, as a means of interlinking large groups of computer terminals

Construction of the Central Business Exchange (CBX) is key factor

Drive for more offices

Property

THE CONSTRUCTION of new office property in Milton Keynes is now regarded as a key factor in tha future developm/nt of the city, not only in terms of providing additional employment, but in completing the central urban area.

The construction of tha CBX complex is a major step in this direction, and architects are now working on the design for the second phase. The development corporation believes that the experience it bas gained in the funding of phase one bas been invaluable.

Inevitably, funding will become easier as confidence grows and the returns to institutions become more attractive. It is expected that a rental of £10 a sq ft will be obtained at the CBX, setting the pace for future developments.

According to Mr Bob Hill, commercial director of the development corporation, the letting of the 136,000 sq ft Avebury Building within CBX is likely to be crucial. It is of high specification and aimed at a major company as a beadquarters, and an early letting would also pave the way for a stronger market.

Overall, the take-up of office property has been fairly brisk in recent months, with Century Insurance of tha U.S. taking about 80,000 sq ft, British Telecom nearly 75,000 sq ft, Stone and Webster engineering of the U.S. 133,000 sq ft and Pharmacia of Sweden about 35,000 sq ft.

All of this bas been in speculatively built space. About 90,000 sq ft of such space was let in the past financial year in 43 separate transactions to tenants including Rothmans UK, Plessey and Takenaka of Japan.

In the autumn of last year, Scicon occupied the 83,700 sq ft Wavedon Tower after their purchase of the campus site from the development corporation, which bad itself occupied the 69,300 sq ft Saxon Court as its beadquarters in July. Abbey National Building Society occupied its 192,600 sq ft administrative headquarters at Grafton Gate in the centre of the city.

Encouragingly, the development corporation has announced that terms have now been agreed for the disposal of six office sites in the central area for owner-occupied buildings, ranging in size from 6,300 sq ft to 45,00 sq ft. These will include the British headquarter of tha Compuware Corporation of Michigan, and a new Crown building to bring under one roof tha government services within the city.

Due to strong demand for small office suites, the development corporation has let 24 of them in sub-divided space in Midsummer House, and to meet additional demand of this kind part of the Station South office building is also being divided into small units.

As this is seen as a growth area, two speculative office schemes are now under construction to cater for the demand for small, self-contained office buildings. Viking Developments is going ahead with a plan for 12 three-storey units set around a landscaped courtyard, to be made available on a freebold basis. A similar and nearby corporation scheme, will be available on a leasehold basis.

Lettings

Lettings bave generally been at rates of between £7.00 and £8.50 a sq ft, this figure being achieved for the BT offices in Central Plaza North, an Abbey Property Fund building.

At Silbury Court, the first floor continues to be used successfully by Silbury Business Centre, where 4,500 sq ft of space is let in small units, fully serviced with secretarial staff and other amenities.

The centre was established in 1982 and has served a number of major companies as well as many small ones as a temporary base which offers maximum convenience. It also caters for non-resident companies, now about 30, which do not need accommodation, but to whom there is real value in a prestige address and communications services.

Prices for 100 sq ft suites begin at £95 a week, £35 a day, rising to £220 a week for the largest accommodation. Meeting rooms cost £40 a day, or £30 for a balf day. Display areas can also be rented.

According to local agents, Connells Commercial, the letting of the remaining 40,000 sq ft of Silbury Court to the Dee Corporation was achieved at a letting of £7.35 a sq ft for Sun Alliance Assurance. Connells, acting on behalf of Allied Hambro, bas also assigned the lease of 2,232 sq ft of offices at Norfolk House at a substantial premium on the basis of the passing rent of £12,000 a year.

"While development in the central area of the city has been the most spectacular, Bletchely in the southern area has begun to recover some of the ground it had lost over the past few years," Connells said. Recent lettings bave achieved prices of around £4 a sq ft, while an industrial letting of 80,000 sq feet Bletchley achieved £2.75 a sq ft.

Berry Bros reports that rents in modern buildings outside the city centre can be as low as £3.50 a sq ft, but are generally in the range of £6-£6.50 in the more desirable locations such as Newport Pagnell.

The success of the major retailing centre in Milton Keynes has mounted in recent years, with the continuous addition of important new shops, including Benetton, the Italian-owned fashion chain, while British Home Stores has expanded its store to include e food hall.

Earlier arrivals have included Habitat, Dickins and Jones, part of the House of Fraser group, John Lewis, and Marks and Spencer. These important names have not only given prestige to the shopping centre, but provided the kind of quality goods which the increasingly demanding population requires.

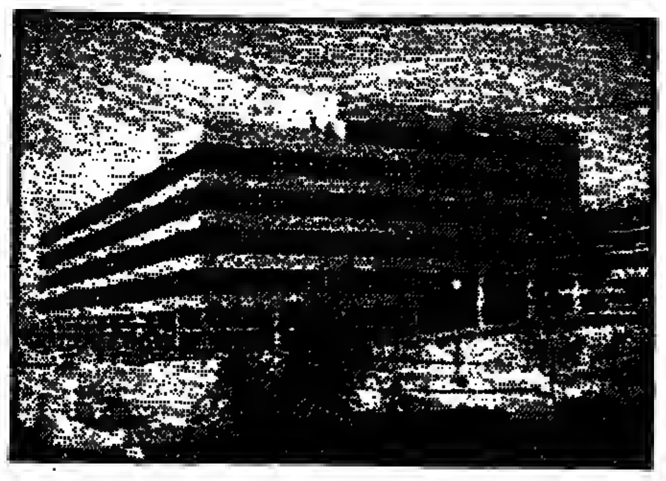
The next phase of retail development will be on the southern side of the central Milton Keynes shopping building, of two food superstores which would complement the range of sbops already operating. This will include several smaller food shops and is expected to start trading in 1987.

The central "corridor" of the city has been pinpointed as the primary location for retail development, and efforts have been made to accommodate "retail warehouse" operations which have become so popular all over the country. At Rooksley, a new Texas Homecare store has been opened, and anothar retail warehouse is being marketed by the development corporation st Winterbill.

Shop units

Premises at Stantonbury, formerly used as a temporary bealth centre, hava now been successfully converted into four sbop units, while at Wolverton the Agora development bas now been fully let, the corporation said. Four local shopping facilities, regarded as essential local amenities, have been completed at Two Mile Ash, Furzton, Emerson Valley and Great Holm.

Overall, retail development bas needed to be generally encouraged by the development corporation, but as in other areas of activity, It is now expected that the momentum created by the arrival of major multiples will encourage natural investment in retailing.



The Avebury Building, suitable for office headquarters, is expected to be completed next month. It is part of the Central Business Exchange (CBX) development. Below, typical modern office development in the Linford Wood area

Hugh Routledge

Major retailers have moved into the central shopping area of Milton Keynes

Malcolm Brighton, managing director of DRS Data and Research Services: people in science-based companies like pleasant surroundings.

PROFILE; DRS

Advantage in living near to hi-tech offices

THE THEORY that high technology companies thrive in rural surroundings has a sound basis behind it, according to Mr Malcolm Brighton, managing director of DRS, a company which moved from London to Milton Keynes in 1975.

He points ont that the major resource of science-based companies is people, and that they are the kind of people who like outdoor life, pleasant surroundings and easy access to their place of work.

DRS has two main activities: the provision of data scanning equipment and services; and the manufacture of data logging equipment. Both require highly qualified employees, and Mr Brighton believes that being in Milton Keynes bas assisted him in finding the right staff.

While admitting to being on the board of development corporation, he is a total enthusiast about the city, much of which can be seen from the office of his brand new company building.

DRS was formed in 1969, with backing from Kleinwort Benson, when Mr Brighton saw the potential of a scanning system, made in the U.S. by Westinghouse, with belp from his company. Essentially, the system reads ticks in boxes at an enormously fast rate, 11 sheets of A4 a second, both sides.

This offered great advantages for the analysis of market research, for the reading of multiple choice answer papers, and other kinds of repetitive checking work.

Despite all this, the company made e slow beginning due to lack of marketing experience and it was decided to move ont of London where other products could be developed, mainly in the field of new methods of computer data entry.

The company has developed a considerable amount of expertise about mark reading, and also automatic data-logging, such as is required to read water flows, rainfall or other information which needs to be logged over a period of time.

This bad traditionally been carried out by mechanical means, with the need to transfer recorded information manually to computers for further analysis. Five years ago DRS came out with its first solid atate recorder which has led to considerable success.

This and its successors have been tough, battery-powered machines which are waterproof, secured against vandalism or accidental damage and virtually "powered for life" by special batteries. They have e very high information storage capacity and built-in telemetry systems which enable information to be gathered down a phone line.

The applications of the loggers are numerous, depending only on the kind of sensor fitted to them. They have been sold to countries such as the Philippines, China, France, Germany and Switzerland.

The data-logging system was developed largely to diversify the company from its optical mark reading product, but in the meantime this proved to be a success. Initially, DRS was doing reading work on a bureau basis for customers, but later sales started to pick up.

Organisations which handle large quantities of data in this form, such as insurance companies, universities and the market research departments of major companies such as Unilever, are all potential customers. The company also provides consultancy on software, placing a lot of emphasis on after sales service.

120 workers

DRS came to Milton Keynes with 30 employees, and the figure has now risen to 120. Mr Brighton believes the move was the most important business decision be has ever made, for one particular reason.

"In any high technology business you need an adventurous, pioneering atmosphere and Milton Keynes is bristling with it," he says. "We sell intelligent man-hours, and you bave to provide an atmosphere where people enjoy working."

He said that many employees lived very close to the office, and when they have a problem to solve will often come in at week-ends to get on with it. In London, with the need to commute, this very seldom happened.

Similarly, the company would not have been able to afford to build new premises there, since the cost would have been about four times as bigh—"About balf the staff live within two miles of the building, and that is an enormous advantage," he says.

Mix of developers is successful

Housing

HOUSING DEVELOPMENT in Milton Keynes has been the town's most important long-term undertaking, both in terms of meeting the demands of growth and establishing an architectural style for the emerging city.

More than 30,000 houses have been built in the city since designation in 1967, and by the year 2001 it is expected that a further 33,000 will have been constructed, of which about 30 per cent will be for purchase. Last year 2,862 homes were completed on corporation land, just short of a record number.

The completions were made up of 1,653 by private developers, 801 through shared ownership, 249 housing association and borough council, and 159 for specialist rental.

Private sector building has provided the main thrust of housing for many years, and Milton Keynes has proved attractive to developers, since they have been virtually assured of a continuous flow of new buyers.

The development corporation, for its part, has retained tight control of many aspects of housing development. As each site is brought forward for development and infrastructure provided, plans are drawn up for the type of housing required. This covers size of property, style, and type of tenune, such as rental or sale.

Some advice is offered on type of materials to be used, and other guidelines given, before the site is "taken to the marketplace." A variety of mechanisms are used to choose a successful bidder, such as tender, design tender or negotiation based on tender prices.

The development corporation pointed out that some developers have been working in Milton Keynes for a long time, but at the same time efforts are made to introduce new developers on occasions. Overall, this policy is deemed to have been successful.

In March this year, there were more than 60 private bousing schemes under construction, and there were 55 sites where individuals were building on plots of land. The cost of bouses for sale ranged between £17,500 and more than £120,000, and earlier this year the 10,000th sale was completed.

Shared ownership housing has proved increasingly popular, and about 2,500 sales have been completed since this form of tenure was introduced. It allows the buyer to purchase a share of the house and rent the rest, increasing the owned share by stages.

This facility is offered both by private developers and the development corporation, and recently the Halifax Building Society made available a substantial sum of money for shared ownership schemes, which will effectively fund the construction of around 700 new homes.

Since the introduction of shared ownership, mora than 80 buyers bave gone on to achieve full ownership, while a total of 163 private developer homes were sold in the past financial year on shared ownership terms through special funding arrangements. It is expected that demand for shared ownership properties will exceed supply during the current year.

Demand for rental bousing comes largely as a result of new companies coming to the city, or existing ones expanding, and in the past year a total of nearly 2,000 incoming families were housed in this way, the majority having moved with or come to new jobs in Milton Keynes. Earlier this year, there was a waiting list of 600 applicants who have already obtained local jobs.

The corporation said that waiting times for family bousing were two to three months for priority categories and up to nine months for non-priority groups. Single people with high priority were now waiting between four and six months, while others had to wait up to two years.

Encouraged

Sales of development corporation bouses to sitting tenants have been encouraged, particularly on a shared ownership basis where tenants are unable to afford full purchase, and about 90 sales have been achieved in this way. Overall, a record number of 481 sales to tenants were completed in the past year, raising the total to 1,900. Recent increases in mortgage rates had slowed the rate of sales this year.

A household survey has shown that the local population is still much younger than in the country as a whole, despite a significant rise in the the number of middle-aged and elderly residents. About 80 per cent of residents were "pleased with life" in Milton Keynes (compared with 70 per cent in 1976) while about 70 per cent of people used the special "redway" outdoor routes for walking, and 23 per cent for cycling.

The location of Milton Keynes remains one of its most important assets, both in business and social terms. From a corporate point of view it has the major advantage of being a few minutes off tha M1, it is centrally placed within the UK and, increasingly importantly, relatively near to the booming East Coast ports for trade with continental Europe.

From a social and business point of view, easy access to London is of prime importance. As many as 66 rail connections a day are available to reach London, tha fastest being fewer than 40 minutes from Euston statioo.

Access to London airports is perhsps tha only problem, although the completion of the M25 is claimed to bring Heathrow within an hour's drive. Birmingham and Luton airports are of course easily reachable, while Cranfield airfield, only 10 minutes outside the city boundary, bas facilities for executive and other light aircraft.

There is little doubt that the quality of life in Milton Keynes bas improved greatly in tha past few years and the "New Town blues," once a matter of considerable official concern, are no longer such a problem.

Parks and other leisure areas have reached greater maturity, and the city increasingly has a sense of cohesion about it, with fewer unoccupied open spaces, and much more for younger people to do in their leisure time.

There are two 18-hole public golf courses, and private courses at nearby Aspley Guise, Woburn and Buckingham, an important factor when American and Japanese company executives are choosing a site for relocation.

There are also three leisure centres with facilities for a wide range of indoor sports, each with a theatre and swimming pool. Woburn Abbey and safari park, Towcester race course and Silverstone motor racing circuit are all within a short drive of the city.

The city has a wealth of parkland within its boundaries with three large, man-made lakes providing venues for water sports and the canal and rivers for fishing.

Jo Reid & John Peck

Portico entrance to rear of houses at Stantonbury

Architecture

Colin Amery

RIBA's national treasure of drawings

There exists in London the finest collection of architectural drawings in the world.

But it is a pretty well-kept secret that 400 drawings by Palladio, work by Rubens, Scamozzi, Smythson, Talman, and all the great architects of the 19th century in England and many of tha best of the 20th, are permanently evailabla to scholars and the public at the Royal Institute of British Architects in fine premises at 21, Portman Sqnare, London.

The exhibition at the Heinz Gallery at the same address runs until November 2. It is entitled *In Pursuit of Drawings* and presents a display that represents the past 20 years of collecting at the RIBA.

It provides an opportunity to review the nature of the Drawings Collection, especially valnable as the RIBA is discussing the possibility nf moving tha entire collection back to the institutional headquarters in Portland Place.

In the last 20 years the collection bas grown from 120,000 drawings to more than 350,000. Without any public funding it has become the leading collection in the world. And like so many British cultural institutions it is under-funded, understaffed and at risk from bureaucracy. It has curiously become the victim of its own expertise: the architectural drawing has acquired a market value that is enhanced by the very existence of the collection.

The distressing fact is that the RIBA has a purchase grant of around £3,000 a year. At most of the London architectural drawings eales North American buyers form the bulk of tha purchasers, and the establishment of the Canadian Centre for Architecture and the decision of the Getty Museum to buy drawings mean that the competition is stiff.

The important thing is that the RIBA already has some of the finest drawings in the world and promises of more if space can be found. The present exhibition reveals just the tip of the iceberg but it is enough to show the quality of the rest. I warmly commend it, partly because it shows an agreeable cross-section of architectural achievement from 1835 to the present, but also because it shows the intellectual breadth of the collection's curatorial staff who have wisely realised that architecture'e future depends on an understanding of the distant and recent past shown through drawings which map the thinking of architects.

A fine 19th century drawing of the Albany, Liverpool, by James Kellaway Colling on show in the Heinz Gallery

The visitor to Portman Square is first greeted by a model of the Coal Exchange by James Bunning (1802-1863)—a reminder of one of the lost glories of the City of London. It is also a reminder that the collection houses some 60 important models—they are not shown to any edvantage, alas, andt heir storage and maintenance raises problems.

Another City building, the Wood Street Police Station by the architects McMorran and Whitby dominates the first room.

Fortunately the RIBA has the drawings by the late Michael Ventris, an architect who deciphered in his short life the Minoan Linear B script. The drawing that explains some of his processes of discovery is hanging in this exhibition without, in my view, sufficient explanation for the layman.

One of the great architectural drawings is in the first display case as you enter the Heinz Gallery. It is a small, potent architectural fantasy by William Burgess (1827-1881) showing the glowing interior of a Gothic church with a green-robed giant figure occupying e throne surrounded by mysterious worshippers. It is a remarkable drawing because in one small compass it portrays the thought and inspiration of a great artist and designer. The whole of the magic world that Burgess was to create is enshrined in that one watercolour. Similarly, the Pugin paintings of his own house at St Marie's Grange, convey the essence of the Gothic mood.

The sketchbook of the furniture designer and maker Ernest Gimson, a modest affair with graph paper pages, shows precisely the early design thought of this master craftsman. Immediately his work is made approachable. Similarly, the Swedish sketchbook of Sir Edward Maufe, made on his travels in 1924, reveals the source of his refined classicism.

The modern drawings have their own fascination. No one can claim much artistic merit for many of them but the cryptic planning exercise for Sheffield's Park Hill housing development indicates a retreat into abstartct architectural theory that had little to do with the homes that were being provided. The designs for the Coronation and Festival of Britain have a sense of period chic about them that is refreshing. It is particularly revealing to see the model of Finmere primary school—a classic of the development group of architects at the Ministry of Education. In scale and colour it says everything about the aspirations of welfare state architecture at its best.

This display raises anxieties about the planned move of the collection. It is hard to see the point of moving into cramped premises where the space planners have already decreed that "there is no room for expansion." The RIBA should be looking at alternatives appropriate to the world status of the collection. In the 19th century about a new building for tha greatest collection in the world. Why not think on that scale today for the future? An appeal for a mere £5m to squeeze the collection into inadequate premises with the old library seems both short-sighted and mean spirited. The public and the collection deserve better things from the RIBA; this is a national treasure of the highest quality.

La Bayadère/Palace, Manchester

Clement Crisp

Festival Ballet's triple bill in Manchester at the end of last week offered testing matters of stylistic understanding for the company's dancers. Paul Taylor's angelic *Aureole* entered the repertory, as did Netalia Makarova's staging of the no less angelic classicism of the Shades scene from *La Bayadère*, with the middle of the programme taken up by the troubled emotions of Petit's *L'Arlésienne*.

No cheating is acceptable in any of these, and it is to the great credit of Festival's artists that they came through the test with almost all their colours flying, stylistic differences understood, bravely presented. *Aureole* was mounted (though the programme denied us the information) by Ruth Andrien, distinguished member of Taylor's company. She transmitted to her cast e central fact of the Taylor manner: a sense of physical dignity and grace of spirit.

It is difficult — and how difficult they alone know — for classically trained dancers to catch the exhilarating contrasts between weight and airiness in *Aureole*. There is a tendency to smooth over subtleties of accent by relying upon their bodies' ingrained balletic reactions, which emulsifies ebullience and here-foot fleetness, but Matz Skoog, Anya Gilbert, Theresa Jarvis, Virginie Alberti, and especially the tall Martyn Fleming, made good Taylorian sense, and this lovely work lived.

The problem for Makarova was not to reproduce Petipa's steps, which she knew from her Kirov years, but more vitally, to pass on the lyric/classic style whereby the Shades liva in the Kirov tradition. Thus, from Ekaterina Vazem, who created the role of Nikiya in 1877, by way of her pupil Vaganova, whose pupil Dudinskaya taught Makarova, the artistic bloodlines, the apostolic succession of interpretation, is handed on to Festival's dancers.

The text is clean, true. Where Makarova has most admirably succeeded—as she did with her complete staging for American Ballet Theatre—is to open out and ennoble the way the corps de ballet stand, or take a pose, or move through Petipa's sublimities of step. Generous *épaulement*—so unlike the usual pokey English way in which girls stand, arms raised as if trying to listen to their elbows, torsos unyielding—tells of Festivel's Shedes comprehending the idea of movement flowing, arrested for a pose, then continuing in broad phrases. Festival's corps de ballet has not looked so coherent or so unified in manner for years.

The three soloists still have much work to do on thair variations to suggest a cool splendour of technique, an otherworldly grace, and Elisabetta Terahust has not yet come to any terms with tha role of Nikiya save those of unease. Peter Schaufuss' Solor took the stage in bravura fashion, gesture rich with achoes of tha tremendous drama of love and deceit that precedes this scene.

Tha staging is important for Festival Ballet, and was made possible through the generous sponsorship of Denmark's PRIVATbanken, to whom all thanks. One thing, though must be altered. A trumpery reorchestration by John Lanchbery tricks out Minkus' enjoyable score with Brummagem effects, and Minkus unadorned with such gewgaws is wholly to be preferred.

One other interpretation in the evening must be saluted—that of Patrick Armand as Fréderi, the tragic hero of *L'Arlésienne*. Petit's very stylised choreography for this *Les Noccs* of the Midi is centred upon a taut portrayal of a young man haunted by a lova other than that of the gentle Vivette who adores bim. I have reported with admiration on readings by Rudy Bryans (who created the role), Danye Ganio and Jean-Charles Gil. Patrick Armand makes the part his own in a performance marked by surpassing emotional clarity and physical power. Every nuance of feeling, each bold sweep of movement, spoke of a young artist dancing in splendour at the very heart of the characterisation.

Rigoletto/London Coliseum

Richard Fairman

Another change of cast keeps English National Opera's *Rigoletto* on the run. Such is the popularity of this Mafia-style production — twice seen on the television, many times revived in the theatre — that it must be difficult for the company to keep finding singers to fill the roles, but on Thursday night at the Coliseum two new principals and the conductor were making their debut in it.

It says much for the general health of the company that the show has stayed so vivd. If anything, the pulse in this revival has quickened, bringing an extra flush of excitement as the drama reaches its peaks. When so much is put across with obvious commitment, it is easier to forgive the looser ensemble and even the obvious vocal difficulties as the main singers feel thair way into their roles. Only a few coarse new ideas in the staging (much silly play with guns and blood-money) give cause for regret.

The impact of the prodnction has not lessened with Terence Sharpe's Rigoletto. Nobody has looked better in the part. So downtrodden and pitiable does he seem in his ill-fitting jecket and shabby trousers that one might well take him for one of the janitors in those Naw York epartment blocks. He elso started the evening with a fine, biting "Pari siamo," but this vocal confidence was sadly not maintained. The whole of the second act, in perticuler, needed greater reserves of vocal strength.

For the "Duke," e Mafia leader, the production holds still greater problems. Bonaventura Bottone, making his official debut in the role, has the youth and some of the good looks, but is surely too slight in physique for such a tough dealer. Fortunately his Gilda, Joan Rodgers, is built on an equally modest scale and their long scene togethar went with affection, Bottone phrasing his vocal lines with longer, more geoerous breaths than one usually hears. Some strain at the top of the voice marred tha enjoyment.

Each of the newcomers hed disagreements over tempo with the new conductor, Martin Handley. It is unlikely that they were granted many rehearsals in the middle of such a long run of performances and the precision end detail which made the production so impressive when it was new have certainly long gone. But, rough edges apart, this was an exciting, boldly driven performance that kept the drama ruthlessly on the boil. Verdi's challenging opera, so morally and socially aware, deserves et least this much.

New London Chamber Choir/St. John's, Smith Square

Andrew Clements

The ploy of juxtaposing the 17th and 20th centuries has served the New London Chamber Choir and its conductor James Wood well over several seasons. But et Smith Square on Friday it did net quite come off; there was nothing wrong with the baroque half, but the combination of modern works left much to be desired.

The group of four of Schütz's *Psalmen Davids* that opened the concert was easily the most satisfying portion of the evening: those chosen carefully contrasted settings for doubla choir and continuo (Nos. XVI and XIV) with two requiring also e quartet of soloists (No. XVIII, *Konzert*, and No. X). The performances seemed scrupulously rehearsed, and, in the purely choral psalms particularly, brimming with life. By contrast Bach's motet *Komm, Jesu, Komm* seemed just a little pallid and too carefully sung.

Schoenberg's *Three Satires* Op. 28 certainly have rarity value, but not a great deal else. His wit is cumbersome at the best of times, and the swipes at neoclassicism and "Little Modersnky" in these texts are neither funny nor particularly well-aimed. They reveal more about the less ettractive side of the composer's personality than ebout their targets, while the music seemed strenuously, almost mechanically polemical, despite a vigorous and (within the possible limits of the piece) witty account.

Schoenberg was at leest e known quantity; Xenakis's *Medea Senecae* was receiving its first British performance, though it dates from 1967. Xenakis's choral writing generally veers between the solemnly hieratic and colourfully expressionistic; this work, the fruit of a collaboratioo with Jean-Louis Barrault, is oot quite either. Passages of Seneca rhythmically chanted are framed by sliding, wailing instrumental interludes, erupting occasionally 1olo frenzied tumult. Many of Xenakis's most effective pieces are built from similarly primitive elements; here, however, the structure is unconvincing, and instead of a well directed physical assault there is only e noisy and quite charmless muddle.

The Merry Widow/Sadler's Wells

David Murray

For the past couple of years one has had to admire the New Sadler's Wells Opera for their courage. With their new *Merry Widow* (a co-production with Opera North) one can actually admire the show—temperately, maybe, but in good conscience. It moves at reassuring speed; once the tacky first act is past, Camilla Ashforth's sets are neat and pretty; everybody can sing and the explosion of *grisettes* in Act 3 goes off with a satisfying bang. Given an audience as willing to be pleased as the first-nighters were, it makes a very amieble evening.

Lehar had terrible trouble with bass-lines, but he was a deb hand at shameless tunes. For his librettists there is nothing to be said: the plot of *Merry Widow* is a vanishing quantity, mimicking the routines of standard farce without conviction. As translator, Nigel Douglas has done his best work yet, devising verses that sean musically enough not to fracture the tunes and lacing the text with anachronistic little jokes ("Tranquillisers might help him, hut they'll never he invented in time"). As producer he has managed plenty of honest, hard-working verve.

If there was anything piquant in the original conception it must have had to do with Pontevedrian provincials adrift in urbane Paris, and dignified operetta-stars have long preferred to let that go. So do the present lot; hnt Eiddwen Harrhy's toughly sensible widow still manages some athletic cavorting, and music like "Vilja, o Vilja" suits her happily. Alan Oke's Count Danilo begins insufferably smug and languid but acquires more bite as things proceed, and he sings with confident style. Sarah Brightman's Valeocienne, e thoroughly unreliable little person has a useful little voice to go with e roving eye and a knack for cartwheels.

What she sees in ber Rossillon remains a mystery; Glenn Winslade delivers his numbers competently, hut would gain a bit of self-parody. Julian Moyles supplies a good, incisiva edge in the role of her deceived ambassador-husband, and the lesser players hack him nicely. The tunes remain the main thing; the conductor Barry Wordsworth sails into them with exuberant affection and an efficient orchestra.

Sleeping Beauty/Covent Garden

Clement Crisp

The Royal Ballet season opened on Thursday with *The Sleeping Beauty*, a staging associated more than any other with the company's proudest traditions. With Mark Ermler as guest conductor, the initial bars of the score—electric chords followed by the spacious unfolding of the Lilac Fairy's theme—proposed a grand view of this masterpiece, only partially realised in the dance performance.

The music gives so clear an indication of the way in which the ballet must be presented, so true a portrait of the world that Petipa has created, that it is all the more disappointing when the edges of the dancing look blurred, when emotional colour is washed out of variations by politeness and gentility. This was the fate of the Prologue, and it was Lesley Collier as a bright, felicitous Aurora who best opened up the vistas of classic precision and rhythmic nuance which are the real matter of *Beauty*'s dances.

Her Prince was Stephen Jefferies, ever intelligent in finding some emotional weight for a thin character, dancing securely, though I find certain flicked hand gestures in the final pas de deux less than noble in style. For the rest, the company performance was decent, if not fully tuned after the summer's break. And I can still discern no merit in the fashion for dully powdered shoes among the female dancers: it is unflattering to the choreography as to their feet.

The staging has been improved in the transition passage between the Prince's journey and the Awakening. The Panorama music is now played as an entr'acte, and David Walker has provided new and handsomaly bosky gauzes of the castle gates through which Florimund enters the palace, and further greenery to conceal the palace interior before the breaking of the spell. The effect is spacious on dramatic terms, and more telling. Considerations of running time, I suppose, prevent an interval before the last act—as they do the playing of all the dances during ths hunt—but the action becomes too precipitate thereby, and Chaikovsky's broad imaginative span, and Petipa's are weakened.

The Deliberate Death of a Polish Priest/Almeida

Michael Coveney

Saturday was the first anniversary of the interception on a quiet Polish road of Father Jerzy Popieluszko and his driver by the Polish State Security Services. The details of this kidnap and murder are the subject of Ronald Harwood's sober courtroom documentary drama. The evening opens with Struan Rodger as Fr Popieluszko delivering a sermon of the sort that fired the popular imagination and troubled the authorities.

Kevin Billington'a production then relapses into the grey anti-theatre of another thespian courtroom liberal bonanza, *The Steve Biko Inquest*. The four security officers stand in the underlit dock while the show trial proceeds epace. "A pace" is the phrase. The method of dispute is inquisitorial rather than adversarial. Hence the evening's triumph of inert manner over urgent material.

I admire Mr Harwood's nerve in confronting tha amassed material of the trial'a transcriptions. But two questions kept nagging eway. First, what were the political and public forces that impelled these officers into the limelight in the first place? And, second, how might the actors convey that almost tragic dimension to the fate of people who act according to tha wishes of the state only to find themselves abandoned by the same authority?

The repeated battering of the unconscious body as the officers tried to hold down tha car boot is the most shocking evidence, all the more effective for being coolly recounted. But Mr Billington's uneasy production introduces filmed reconstructions of the dragging of the corpse from the river Vistula and of the lncid testimony of the subsequently twitchy Lieutenant Chmielewski. Heving failed properly to exploit theatrical idiom, he abandons it altogether.

It is in the role of Cbmielewski elone thet a sense of theetre prevails, Roger Lloyd Pack daring to invest the hepless moustachioed minor criminal and father of two with e yawning stutter that hangs over namea of colleagues and victims alike, followed hy the pronounced twitch thet became such a feature of News at Ten during the trial.

Alongside him, Derek Newark has to wait two hours before revealing himself ln his true colours as the wretched Colonel Pietruske, while Jim Broadbent as the sullen Lieutenant Pekala lookalike bas little chance to express the glazed but dignified contempt I remember from newsreels. Stewert Wilson's Captain Piotrowski regrets the damage the crime has inflicted on his colleagues' families and delivers a stonily uncomprehending glare when the death sentence is demanded.

The driver who escaped from the moving cer is introduced as a narrator and then abandoned for long periods. Desplte Brian Cox's baggv-eyed gravitas and controlled stillness, he does not emerge as the voice of tha people. He disappears beneath a welter of grisly evideoce shakily intoned by Rosamund Greenwood and sits passively behind the tame auxillary prosecutor of Alfred Lynch. Other names worth noting are John Shrapnel as the chief prosecutor, Garfield Morgan as tha judge and Michael Graham Cox as the general who abandous his craven troops.

Arts Guide

Oct 18–24

Music

TOKYO

Michael Pletnev, piano: Beethoven, Shostakovich, Tchaikovsky. Tokyo Bunka Kaikan (Tue). (5724311).

NEW YORK

Kaufmann Hall: Hermann Prey baritone recital. All-Schubert programme. (1395 Lexington Av (8318003).

WASHINGTON

National Symphony (Concert Hall): Mstislav Rostropovich conducting, Anne Sophie Mutter violin: Schumann, Glazounov, Mendelssohn, Dukas (Tue); Rafael Fruhbeck de Burgos conducting with Elizabeth Knighton soprano, Marta Senn mezzo-soprano, and Choral Arts Society of Washington directed by Norman Scriber: All-Mahler programme (Thur). Kennedy Center (7858110).

CHICAGO

Chicago Symphony (Orchestra Hall): Chamber series by Camerata Chicago: Haydn, Reinecke, Mozart (Wed mat. 5.45); Klaus Tennstedt conducting with Samuel Magad violin: Shostakovich, Mahler (Thur). (4358122).

PARIS

Nouvel Orchestre Philharmonique conducted by Pinchas Steinberg, Igor Oistrakh, violin: Rimsky-Korsakov, Tchaikovsky, Prokofiev (Thur). Radio France, Grand Auditorium (5241516).

Nathalie Bera Tagrine, piano: Bach/Liszt, Beethoven, Schumann, (Thur). Salle Gaveau (5632030).

NETHERLANDS

The Hague, Congresgebouw. Netherlands Chamber Orchestra conducted by Wilfried Boettcher, with Imogen Cooper, piano. Lutoslavski, Mozart, Copland, Haydn (Mon). (548000).

LONDON

Utrecht, St Janskerk. Traditional Christmas music sung by the Greek Byzantine Choir (Tue). (324344).

BRUSSELS

Belgium National Orchestra conducted by Walter Weller, Henryk Szeryng, violin: Bizet, Beethoven (Thur). Palais des Beaux Arts (5124045).

ITALY

Rome: Auditorium of Via Della Conciliazione: Carlo Maria Giulini conducts the soprano Helen Donath, contralto Doris Soffel, tenor Josef Protschka and the bass Hans Sotin in Beethoven's Missa Solemnis (Sun, Mon, Tues). (6541044). At the Teatro Ghione, pianist Vlado Perlemuter plays music by Ravel (Thur). (6372294).

VIENNA

Vienna Classic Ensemble conducted by Adolf Koura. Beethoven. Musikverein (Tue);

Gurlitt's Wozzek by the Orf Symphony Orchestra and Orf Choir conducted by Lothar Zagrosek with Gundula Janowitz and Gruillermo Safabia. Konzerthaus (Wed);

Vienna Symphonyorchestra conducted by Wolfgang Sawallisch with Christian Altenburger, violin. Mozart, Berg (Thur).

Saleroom/Antony Thorncroft

Over $1.7m for the Birds

In 1850 the City of New York paid $1,000 for a set of Audubon's *Birds of America*, one of the most famous books ever produced, with its 435 coloured drawings of birds. It was the last of the sets sold in the artist's lifetime. This weekend New York euctioned the drawings individually for a total of $1,761,842, through Sotheby's New York.

It felt able to do so because it has five more complete sets of *Birds of America* in its possession and the money from the auction will go towards improving its erchives. All 435 plates sold with top prices of $35,200 for a "Carolina parrot"; $31,900 for an American flamingo; and $29,700 for an Iceland falcon, to private collectors.

It was hard to be punctual in Elizabethan England. Clocks were rare and unreliable and without the benefit of a Greenwich standard every locality had its own time. The traveller from London to Oxford would have to adjust his timepiece backwards hy five minutes as he made the journey. To do so he might well have used a pocket sundial, and one of these unusual objects comes up for sale at Sotheby's on Wednesday.

Made by Augustine Ryther in 1588 it is only 5.5 cm across, hut incorporates e magnetic compass, a hinged hour ring, and a list of European towns, with their latitudes. It carries a £15,000-£18,000 estimate.

Two bundred years ago this year Chateau d'Yquem came into the family of Lur Saluces. To celabrate, it is holding, through Christie's, an anniversary sale of this most famous of sweet wines. A hundred cases of the successful 1967 is on offer, on Thursday, along with bottles from 26 other vintages from 1889 and 1970. Prices range from £20 plus for a bottle of 1968 and £250 for the 1889, to around £3,000 for a dozen bottles of the 1967.

On Wednesday Phillips is selling Doulton ware, including two very rare character jugs—"Charlia Chaplin," who carries a top estimate of £3,000, and "George Robey" who could go for £4,000. On the same day Phillips is organising an anction of Penguin first editions to celebrale the company's 50th anniversary. The first Penguin, *Ariel* by André Maurois, could make £50, while a signed first edition of *Cold Comfort Farm* by Stella Gibbons, bound in leather, carries a £300 top estimate.

FINANCIAL TIMES

BRACKEN HOUSE, CANNON STREET, LONDON EC4P 4BY

Telegrams: Finantimo, London PS4. Telex: 8954871

Telephone: 01-248 8000

Monday October 21 1985

Comecon and the EEC

TEN YEARS of sporadic, and thus far fruitless, discussion about establishing relations between the EEC and Comecon, the two economic halves of Europe, have taken a new turn with the latest communication of Comecon's Moscow secretariat to Brussels. The East bloc economic organisation — or the Soviets which dominate it — is now saying that if the EEC agrees to a vague political declaration of mutual recognition, this could open the way for Comecon's 10 member countries to negotiate separate trade accords with Brussels.

In effect, then, Comecon is at last conceding the long-held EEC contention — that it is not the EEC's equal in trade competence, and that real commercial business can only be done between its individual members and the EEC. For all the ulterior Soviet motives in trying to woo Western Europe away from the U.S., this is an opportunity that EEC foreign ministers should not pass up when they come to consider the Community's reply to Comecon later this month.

The first round of discussions between the EEC and Comecon petered out in 1981 on the latter's unwillingness to recognise the difference between the two organisations. They indeed differ as apples from oranges. Unlike the EEC, Comecon has no common commercial policy and does not negotiate for its members, of which some are in Gatt and others ere outside. It has no common tariffs or quotas, and therefore bas little or nothing to bargain with in any bloc-to-bloc negotiations with thet EEC.

In these circumstances, the EEC strategy has been to sit back and wait for Comecon members to break ranks and epproach *Brussels individually* for e trade deal. Its assumption has been that, particularly with the enlargement of the EEC, no Comecon country can in the long run afford to ignore Brussels. The strategy has worked, up to a point. Romania, the eastern maverick, negotiated its own trade agreement with the EEC in 1980. But none of its Comecon partners has followed, though Hungary held informal discussions with the EEC. The reason why Hungary, in the end, drew back from formal negotiations and other east European countries have felt inhibited from even starting discussions with Brussels has been the Soviet desire thst Comecon as an organisation should get some minimal political recognition before its members go their own commercial way.

For their part, Soviet officials say their attitude towards the EEC, which was studiously ignored by Moscow for its first 20 years of existence, has evolved since the mid-1970s to one of *de facto* recognition. But the Soviet change of heart bas been most evident in the past two years, starting with the 1984 Comecon summit's call for new talks with the EEC and culminating in the latest proposal.

Moscow's motives are mixed. When Soviet officials talk, as they do now, of tha EEC as "a political entity," they mean to encourage western Europe to ect politically outside Nato and separate from the U.S. But they also say that one day Moscow may want to negotiate its own trade agreement with the EEC, which with the inclusion of Spain and Portugal will take nearly 70 per cent of total Soviet exports to the industrialised West.

Economic size

What, then, are the pitfalls of the common declaration that Comecon is asking the EEC to agree to? Mucb of the 250-word declaration is verbiage about promoting "lasting peace" and "social advancement" and references to the Helsinki accords. It has as mnch to do with business and trade as, to quote one recent quip on the Helsinki accords, "the message in the average Christmas card." The key phrase, however, is that the two organisations establish official relations "within their respective fields of competence." The EEC would want to make very sure these relations reflect the narrow range of common areas of competence.

There is, to be sure, a problem posed by the sheer economic size and political weight of the Soviet Union, vis-a-vis its Comecon partners and EEC members, in any joint commissions that might be set up. but the Community could avoid this by making very clear at the outset any real trade negotiating is a matter for it and individual Comecon countries.

Labour votes for capitalism

IN HARROGATE last week, Mr Roy Hattersley, Labour's shadow Chancellor, finally scrambled aboard a fast-moving bus, the front seats of which ere already occupied by Mrs Margaret Thatcber, the Prime Minister, and Dr Devid Owen, the Social Democratic leader: wider share ownership.

Mr Hattersley's conversion comes only days after the unveiling of Owners All, a Centre for Policy Studies pamphlet by Lord Vinson and Mr Philip Chappell (of personal pensions fame). This advocates radical fiscal reform to encourage personal equity investment. The authors argue thet tbe tax privileges enjoyed only by big institutions such as pension funds and insurance companies should be extended to individuals — a move towards fiscal neutrality that was explicitly ruled out by Mr Nigel Lawson, the Chancellor, in last year's Budget.

Diverse benefits

The political popularity of wider share ownership is a prime example of the way the Thatcher Government has rewritten the political and economic agenda. Six years ago, the idea was barely discussed in any circles outside the Liberal Party which pressed it in the Lib-Lab pact under Mr Callaghan. Today, employee share ownership, the focus of Mr Hattersley's speech, is very much a commercial reality. One in three companies has either a profit-sharing or a share ownership scheme; half of these extend "right down to the shop floor."

The spread of share ownership and, more generally, eccess to an income linked to profits or the return on capital, is gaining support because it offers such diverse benefits. There is a strong political rationele for breaking down artificial barriers between "owners" and "workers"—for doing for capital generally what has elready been largely achieved in the housing market.

However, there is an equally strong economic rationale for wider share ownership. It is unclear to what extent income from capital cen eventually supplement weges for ordinary workers but any trend in this direction needs to be encouraged.

Companies also stand to gain from wider share ownership. If a sizeable fraction of remuneration becomes profit-releted, and therefore flexible, companies will be better able to weather economic cycles and to provide secure employment; and, as Mr Hattersley stressed last week, employee share ownership schemes could transform trade union attitudes towards industrial success and profitability. In the past, these have been equivocal at best because, too often, profits have been regarded, negatively, as something that pays for somebody else's dividend.

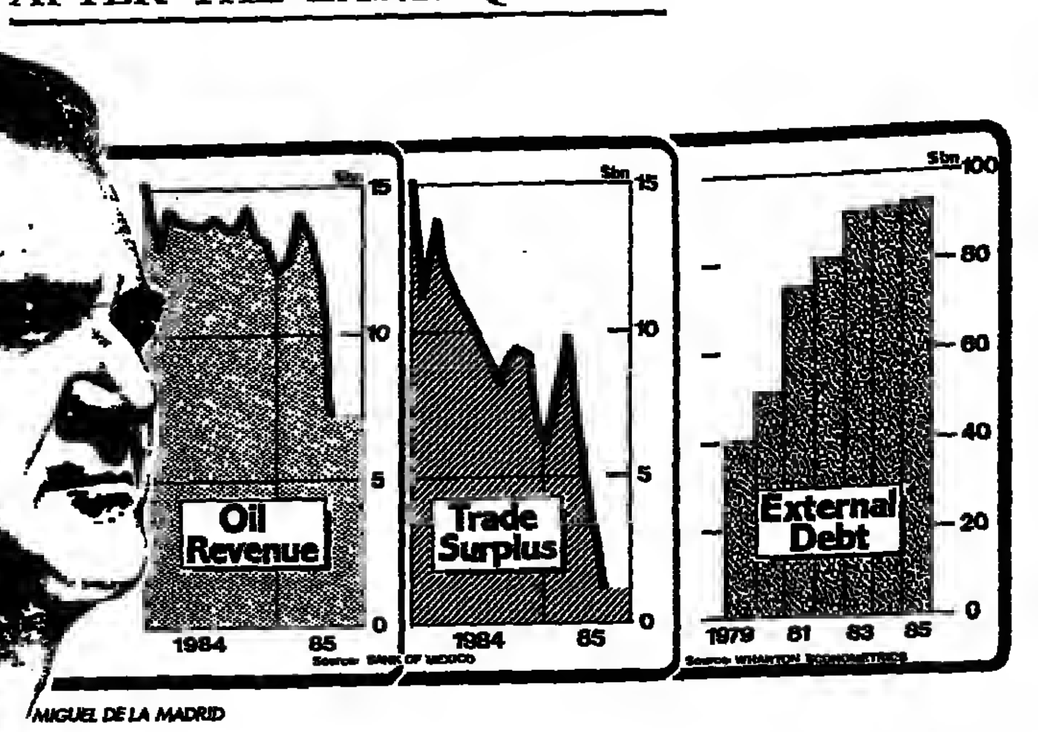
Equally important, as Lord Vinson and Mr Chappell stress in their pamphlet, the diffusion of shere ownership would break the institutional stranglehold over corporate equitiee which has grown more intense under six years of Tory rule. By 1988, eccording to the London Business School, 70 per cent of tbe personal sector's net financial assets will be held at second remove through institutions. Yet institutions are not, by and large, sufficiently demanding shareholders: too often they have passively accepted poor management instead of pushing for changes at the top.

Voting rights

Wider share ownership is not without pitfalls and should not be aeen as a panacea. As Mr Hattersley argues, it is important in employee schemes that benefits are ehared equally, rather than skewed towards management, and that members get the full voting rights of ordinary shareholders. More generally, it is necessary to find ways of minimising the transaction costs associeted with small-scale equity investment outside the work-place and for limiting the risks faced by unsophisticated, first-time investors.

None the less, the sight of all three main parties gathering behind the banner of wider share ownership indicates the pluses may outweigh the minuses. It is also a sign that the political and economic differences of the parties are perhaps not quite as great as is sometimes pretended. Where Mr Hattersley differs is stressing a parallel requirement for employees to participate in company decision-making.

AFTER THE EARTHQUAKES



MIGUEL DE LA MADRID

Martyn Barnes

The political test as Mexico rebuilds

By David Gardner in Mexico City

THE TWO lethal earthquakes which hit Mexico's capital and central Pacific coast last month also struck a seemingly inexhaustible vein of seismological metaphors among the country'e political observers.

Fault lines have been copiously charted. The most graphic is the one which, it is felt, separates the government's response to the crisis from the way ordinary Mexicans have reacted. There is also a near consensus that the country'a finances, already extremely fragile, have been knocked clean off their foundations by the earthquake and that gaping cracks have appeared in the facade of a regime which only four days before the disaster had celebrated the 75th anniversary of the revolntion.

Now the shaken edministration of President Miguel de la Madrid must face difficult renegotiations with the International Monetary Fund.

The human and material loss inflicted by the quakes of September 19 and 20—wblch measured 8.1 and 7.5 on the Richter scale—has been very heavy. At least 20,000 people died.

Around 1,500 buildings were destroyed, or so hadly damaged that they will have to be demolished. These inclnde two major state hospitals (one of them the Centro Medico, Latin America's largest public health complex), possibly 50 schools, five ministries and adjuncts of several others, the country's major telecommunications installations, 20 to 30 botels, and an estimated 50,000 homes

The country's industrial base, however, was relatively unscathed, with oli installations, mines, vehicle and light assembly plants all intact. The two most significant economic casualties are tourism and textiles. Gross tourism receipts of over $2bn are expected to plummet in the short term as a result of damage to hotels in the capital and the Pacific Costal twin resort of Ixtapa-Zihuatanejo.

Around 500 of some 1,300 small concerns in Mexico City's nearest equivalent to tha New York garment district were also wrecked.

But even before the quakes, the government of President Miguel de la Madrid hed been grappling with the worst economic crisis in Mexico for half a century and a slower-moving but arguably equally profound political crisie. There was always serious risk of the two rises becoming compounded — the horrific events of September have increased this risk.

The economic problems followed Mexico's financial collapse in August 1982 and in the main have been tackled with orthodox prescriptions within a three-year programme agreed with the IMF, which was due to end this December.

In its first two years, this programme halved inflation, cut the public sector deficit and imports by nearly two-thirds, turned Mexico's external finances round to prodnce bumper trade and current account surpluses in 1983 and 1984 and rebuilt the country's reserves. After two major restructurings, Mexico also kept up to date with service payments on its $96bn of foreign debt.

The unparalleled austerity through which this was echieved also reduced hy a third the purchasing power of that half of the 24m-strong workforce with full-time jobs and doubled unemployment to around 16 per cent. The living standards of Mexico's large middle class have also suffered

This crisis followed six years of 7 plus per cent growth under Sr de la Madrid'e predecessor, Sr Jose Lopez Portillo—a growth rate fuelled by an oil and credit boom after major oil discoveries in the early 1970s made Mexico the world's fourth largest crude producer. The grandiloquent Sr Lopez Portillo, whose edministration presided over multi-billion dollar corruption and waste, shortly before the collapse defined Mexico's central economic problem as "the administration of abundance."

Political reform has been reduced to a slogan

The political bill for this excess has been handed to what many feel is the least politically adept administration Mexico has ever had. President de la Madrid's team of politically untried, largely Ivy League-trained technocrats emerged from a federal bureaucracy, which over the past 20 years has bypassed the Ruling Institution Revolutionary Party (PRI) as the route to power in Mexico.

Neither Sr de la Madrid, nor his two predecessors, had been elected to anything before being selected hy the oot-going president and confirmed at the polls hy the PRI electoral machine. And few senior officials have had contact with elective politics. All this shows — both in the administration's lack of political touch and in its lack of any firm social base outside the bureaucracy.

Nonetheless, Sr de la Madrid himself won initial popularity on taking office in December 1982 by promising economic renewal through radical structural reform, and political reform through the hallmark "moral renewal" programme. The latter pledged to root out corruption and move towards a more open democracy.

To date the Government has failed to convince Mexicans it is capable of delivering either.

Even faith in the Government's anti-corruption drive—which began with charges egainst two exemplars of Sr Lopez Portillo's administration, the former head of Pemex, the state oil monopoly, and the Mexico City police chief, has been weakened by a failure to press home the attack.

Meanwhile political reform has been reduced to a slogan by the Government's resort to wholesale hallot-rigging in the July 7 mid-term Congressional and Gubernatorial elections, when Sr de la Madrid was eager to deny the right-wing National Action Party (PAN) governorship victories in the rich, strategic northern border states of Sonora and Nuevo Leon.

Most crucially, the Government has lost its grip on the economy. Pork-barrel spending and e premature recovery ahead of the July polls had growth steaming along at over 7 per cent in the nine months to June, sucking in imports and checking non-oil exports which industrialists used to a captive market had been selling ahroad as surplus to domestic demand.

The Government has also vacillated over key elements in its economic reform programme. A major divestiture plan for the cash-devouring public sector was announced in January but by mid-year nothing had been sold. A plan to liberalise imports in order both to make Mexican exports more competitive and reduce inflation was sharply diluted after opposition from industry. Tbe peso has also remained overvalned.

Throughout the first half of the year, the Government stuck to its policy of pre-set crude oil prices aligned to Opec, despite growing evidence that as the oil glut swelled, Mexico's market share could only be preserved hy a more flexible pricing policy. By the time a differential price structure was introduced in July, sales had been cut by nearly half and some $1.5bn lost in revenue.

Average exports in June had fallen to 800,000 barrels a day, against an official 1.5m b/d target. Energy officials claim that sales recovered to 1.3m b/d in July and have been on target thereafter.

Oil not only provides 70 per cent of Mexico's export earnings but 45 per cent of Treasury receipts, and the Government has had to borrow heavily internally to make up for the lost tax revenue, pushing interest rates to record highs, fuelling inflation (now running close to last year's level of 60 per cent) and adding substantially to the public sector deficit.

The emergency austerity package announced in late July — including the year's third round of spending cuts, a 16.7 per cent devaluation, and, finally, import liberalisation — was remedial rather than radical and further fostered the image of an indecisive leadership reacting to rather than anticipating events.

This impression was powerfully reinforced by the Government's initial handling of the earthquake disaster. While Mexico City inhabitants of all classes mobilised in their tens of thousands immediately the first earthquake sliced through the capital, the Government dithered, looked remote and sounded obtuse.

The refusal of foreign aid for 48 vital hours, a well-placed official says, had nothing to do with national pride: the Government simply could not make up its mind. The army was not allowed to implement its national defence contingency plan for disasters, it now appears clear, because the Government feared giving the traditionally quiescent military a protagonist's role. The Army instead became more of an obstacle to rescue work, used for petrolling and to rein in the volunteer hrigades, whose vigour and autonomy appeared to alarm the bureaucracy.

Little prospect of improvement in the economy

Paradoxically, however, the Government's economic hand may have been strengthened by the disaster. It hopes now to present to the IMF new, more flexible targets, which it was heading for even without the earthquake costs, must of which may now be met by new credits from international financial institutions, banks and hilateral funds.

As some officials see it, Mexico's hargaining position with the IMF and its creditors has been reinforced, making it easier for the country to seek a substantial lightening of its interest rete burden, now about $12bn-13bn a year, or over 60 per cent of this year's likely exports revenues.

The type of arrangement Mexican government debt strategists are exploring would guarantee the country an injection of new money whenever interest payments exceed a certain threshold, or percentage of incoming foreign exchange revenue. This implies a sort of "reverse rate cap" in which all interest payments would be met. Peru, the leading latin American rebel against IMF strictures, has unilaterally insisted upon a similar capping mechanism.

Until some new arrangement is reached there is little prospect of any improvement in the economy. The earthquake will help induce the recession sought in the July austerity package, dampening imports and perhaps boosting exports. But the Government's domestic indebtedness is nearly out of control, sucking dry the banks and distorting the money markets. The public sector deficit looks like reaching double the IMF-agreed target of 5.1 per cent of GDP.

But the Government's margin for manouevre is constrained by the virtual consensus which has emerged since the earthquakes in favour of a suspension of all debt service payments. The trade unions, the private sector, the Church, the political parties and the PRI itself all fevour some form of moratorium. That is about as near to a consensus as is possible in Mexico.

Sr de la Madrid's two predecessors, discredited at the end of their terms, sought vainly to recover prestige by a desperate *fuite en avant*. Sr Luis Echeverria expropriated 100,000 hectares of prime farming land in Sonora and handed it to the peasants and Sr Lopez Portillo nationalised the banking system. There will now be strong pressures on Sr de la Madrid to do something similarly spectacular as the regime tries to re-establish a political base, or as he himself put it last week shortly before the Government expropriated 7,000 ruined building sites, to "re-lay the foundations of Mexican destiny."

Political precsure, in particular, will grow from now until Sr de la Madrid steps down in 1988. Next year alone the Government fsces five governorship contests in states where the PAN has a good a chance as it had in the rigged Sonora and Nuevo Leon elections.

It is thus no longer difficult to imagine a situation in which the Government might find it politically expedient to adopt a much more radical stance on its deht problems, particularly if it feels it is not receiving the "extraordinary understanding" from its creditors and the IMF for which the President appealed shortly after the earthquakes. For the moment, however, Sr de la Madrid is firmly opposing any unilateral action on debt.

Both the Fund and the banks may have to put aside their irritation with Mexico's inability to meet its targets. Even before the earthquakes, senior officials such as Sr Jesus Silva Herzog, the Finance Minister, had explicitly said that Mexico would only be eble to meet its overseas obligations if new money was available. In the post-quake climate this has now become almost an article of faith.

Men and Matters

Retreat in the Bahamas

Lyford Cay, the Bahamas "retreat" to which Commonwealth leaders withdrew for the weekend to try to sort out their differences over South Africa, is not exactly a hideaway for the hard-up.

Built by Toronto brewery magnate and financier, E. P. Taylor, in the late 1950s, it has provided the background for scenes in the James Bond film, Thunderball. It was the venue for a meeting in 1962 between the late U.S. President, Jack Kennedy, and then British Prime Minister, Harold Macmillan. The Queen and Prince Philip stayed there in 1966.

Those wishing to buy a plot of land or a "cottage" on this modest estate on a peninsula 17 miles from Nassau, with its championship golf course, marina and $2m club bouse, will find the prices fully competitive—with those in Mayfair, New York's Fifth Avenue, and the Avenue Foch in Paris.

I have it on good authority that if you cannot afford to buy, you can rent a four-bedroomed cottage, complete with two maids, one chef and three cars, for $8,000 e week.

One press-man, seeking cheap refuge from a rainstorm while waiting for the heads of government to arrive, bought an umbrella at the golf shop. It cost bim a mere $40, and did not fall epart until at least two hours later.

Lange's view

The Prime Ministers, you might think, would be grateful for the hospitality provided to help them recover from all that fruitless talking since last Wednesday.

Not a hit of it. Though tables had been laid out for them on Saturday in a little colonial-style hungalow next to the main club house, with a view of tropical gardens and e palm-fringed beach beyond, few turned up.

Mrs Thatcher preferred to scrummage around in the fridge of her own cottage on the estate —each leader has been provided with e house—while Bob Hawke, the Australian PM, was clearly still recovering from a morning round of golf with President Kenneth Kaunda of Zambia.

Mrs Thatcher was said to be working on her speech for the 40th anniversary of the United Nations, leaving the others to find a compromise which would take account of her firm opposition to economic sanctions against South Africa.

David Lange, of New Zealand, did turn up, however, in e safari shirt hardly large enough to cover his bulging frame. Professing to be totally ignorant of what was bappening behind the scenes, be said the atmosphere was "very much like a caucus before a leadership coup."

For once, the outspoken Lange appeared overawed by his surroundings. "I saw a yacht this morning," he confided. "Where I come from, yachts float, just, have sails and are sometimes sunk. But this one looked like the Taj Mahal."

Lange did not really know how the crisis was going to end. "Just watch us," he advised. "If matters come to the point of agreement, we'll be swimming and playing golf. If we don't take to the water, we're still struggling."

It is a hard life in Lyford Cay, I can tell you.

Fall out

Alongside the weighty arguments about "institutional propriety" which are officially said to lie behind last week's collapse of the Italian Government some point to a much simpler explanation — the intense dislike that Giovanni Spadolini, the Defence Minister, and Bettino Craxi, the Prime Minister, have for each other.

It will be recalled that it was Spadolini's disapproval of Craxi's handling of the Achille Lauro affair that led to the withdrawal of his minority Republican Party from the Government.

In theory, the two men ought to have mnch in common. They both lead parties in the centre-left of Italian politics sandwiched between the Christian Democrat and Communist machines.

Craxi'e larger Socialist Party usually needs Republican support. But it was Spadolini who became Italy'e first non Christian Democrat Prime Minister since 1945 — and that is where tha trouble lies.

Spadolini's two Governments, between June 1981, and November 1982, were both brought down by Craxi, who was determined to let nothing stand between him and the Prime Minister's office. Spadolini has never forgiven him.

Nor can Spadolini have much liked Craxi's success in staying in power for an unbroken period of more than two years — just 29 days short of post-war Italy's record for governmental longevity.

The two men are quite different in temperament. Spadolini is friendly and loquacious, a born conciliator; Craxi is prickly and, on occasion, ruthless.

Now that the U.S. has patched np its quarrel with Italy, there are signs that Craxi could soon return to power. If so, he would have outmanoeuvred Spadolini again. At least until the next episode in their quarrel.

Word perfect

Japan is, as the world knows, embarked on a process of internationalisation. This does not mean merely selling things, but becoming, in less easily definable ways, more attuned to foreign habits.

One by-product of this is a remarkable competition between senior politicians to display their prowess in the English language.

Yasuhiro Nakasone, the Prime Minister, last week gave a speech in English to tha Foreign Correspondents' Club in Tokyo—a task he has tackled only once before as PM, at the International Institute of Strategic Studies in London last year.

In casual conversation, moreover, Nakasone demonstrated a reasonable competence in unrehearsed English, though scurrilous Japanese magazines have taken singular delight in pointing ont such infelicities as he did commit publicly.

It was surely no coincidence that Nakasone's speech came a few days after Foreign Minister, Shintara Abe — who has his eyes on Nakasone's job — made a maiden speech in English in San Francisco. This amazed even Abe's admirers for he had not previously shown any knowledge of the lsnguage.

Other would-be Prime Ministers are also dusting off their linguistic abilities. Susuma Nikaido—in his late 70s and an admitted longshot for the post —has been touring the U.S. trying to persuade American politicians, in serviceable if colloquial English, that Japan is not ebout to undo the U.S. economically.

Another candidate, Kiichi Miyazawa, is an accomplished linguist from way heck.

All of which has left the other leading contender, Noburo Takeshita, the Finance Minister, in s dilemma. Before he entered politics, he taught English. But he has taken to giving little speeches of late, conceding that indeed he was an English teacher, hut then adding, artfully and accurately, that like most Japanese English instructors, he cannot apeak the language et all.

Observer

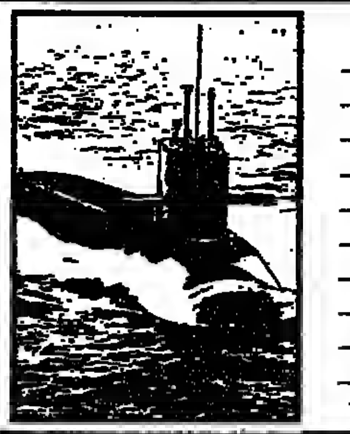
THINGS ARE moving along quite nicely towards the Reegan-Gorbachev summit in Geneva next month—at least from tha Soviet point of view. Moscow has made a radical proposal for deep cuts in nuclear weapons. The Americans have been urged by their European ellies to respond with e counter-offer of their own and that recommendation will be pressed home by Mrs Thatcher at this week's western mini-summit in New York. Finally, the Americans have backed away from a legalistic interpretation of the 1972 Anti-Ballistic Missile Treaty that could have allowed them a totally free hand to develop and test a Star Wars anti-missile defence system. In other words, Mr Mikhail Gorbachev still seems to be holding the propaganda high ground.

Yet it remains hard to discern Soviet strategy in the run-up to the summit, and even harder to make out wbether, in the next four weeks, the U.S. Administration bas or can devisa a coberent strategy of its own. The Soviet position, as enunciated by Mr Gorbachev in Paris and as embodied in tha formal proposals in Geneva, contains glaring inconsistencies. In Washington there is a continuing bureaucratic struggle between those who favour and those wbo oppose arms control in principle; and for all we know, the contradiction in the Soviet proposals may reflect an analogous bureaucratic argument in Moscow. So it is not yet clear wbether Mr Gorbachev's propaganda advantages will do him, or the West, any good wben the big day comes.

FOREIGN AFFAIRS: NEXT MONTH'S SUMMIT

Gorbachev puts some cards on the Americans' table

By Ian Davidson



STRATEGIC WEAPON TOTALS

	U.S.	Soviet
ICBM missiles	1,030	1,398
ICBM warheads	2,130	6,400
Missile submarines	37	62
Submarine missiles	600	954
Submarine missile warheads	5,370	2,500
Missiles Total	1,630	2,352
Missile Warheads Total	7,500	8,900
Bombers	263	480

Source: USIS

The Americans bave been careful to emphasise, time and again, that they welcome the Soviet proposal for deep cuts, as a first step which could allow the negotiations to get moving. Just as regularly, they then complain thet it is one-sided, unfair, unbalanced and self-serving—and they go on to give facts and figures *why* they think it is one-sided, unfair, etc.

Some details of the Soviet plan bave been given to tha Washington press corps in a background briefing by "a senior Administration official," who may be none other than Mr Robert McFarlane, President Reagan's Netional Security Adviser. The full text of his briefing has been disseminated world-wide by the U.S. Information Service; but if this is background, it is hard to imagine what is left for tha foreground. It is also hard to be sure how far one can rely on an American gloss of the Russian proposals. Still, here goes.

The gist of the Russian plan is that there should be a 50 per cent cut in strategic *missiles and bombers* on both sides, with a ceiling of 6,000 warheads.

Thia is not a world away, in crude terms, from the long-standing U.S. offer to cut strategic *missiles* to 850 on each side (whicb would be a 50 per cant cut for the U.S., and a bigger cut for the Russians); with a ceiling of 5,000 missile warbeads on eacb side (which would be a one-third cut for the U.S. and a bigger cut for tha Russians).

The central trouble with tha Russian offer lies in their definition of "strategic." In the Strategic Arms Limitation Treaties of tha 1970s, strategic weapons were defined as those having a range of 5,500 km or more, that is, those capable of reaching the Soviet Union from the U.S. and *vice versa*. Now the Russians are going back to their old game of trying to define "strategic" by the target territory: in this sense, any U.S. weapon is strategic, whatever its launching point, if it can reach the Soviet Union.

The Americans object strenuously to this rewriting of the negotiating conventions, for obvious reasons. It would mean that the U.S. total under the chopper would be bumped up by all their nuclear weapons in Europe—Pershing II and cruise missiles, land-based and carrier-based aircraft—so that a 50 per cent cut would bite mnch deeper into the total arsenal of the U.S., especially with an absolute warhead ceiling of 6,000.

Now it is easy to see why the Russians should be trying this on. They did their damnedest, in 1982-83, to prevent any deployment of the new cruise and Pershing II missiles in Europe, and they failed. They may fear that the super-accurate Pershing IIs could even reach Moscow. In the Euro-missile negotiations, they never conceded America's right to deploy such missiles; they may feel that it contrevenes the tacit Russians could be counted on to start out by asking for a good deal more than they expected to end up with: negotiation would whittle awey the worst extravagances. But this opening position is so far from any imaginable centre-point that the whittling process will take months, if not years. It will need several more speeches, with dramatic shifts of position, if the two sides are

Whittling away the worst extravagances will take months, if not years

deal after the 1962 Cuba crisis, when Moscow drew back from deploying missiles in Cuba, and Washington then withdrew missiles from Turkey.

Bnt it is less easy to see why the Russians should imagine that they could swing a deal which is manifestly inequitable and non-negotiable; why they should be asking for the sun and tha moon with only a month to go before the summit; or even—and this is the puzzling part—what is their *real* position on nuclear weapons in Europe.

Mr Gorbachev has said that he wants the summit to conduct real business, by inference real arms control business. The to be able to agree aven some basic principles next month.

The puzzling part is this: in his Paris speech, Mr Gorbachev proposed in unmistakeable terms that medium-range weapons in Europe should be covered by a *separate* agreement, distinct from strategic and space weapons. He went on to announce a reduction in Soviet SS 20s aimed at Europe; and he called on the U.S. to respond, by halting deployment of cruise and Pershing IIs.

One explanation, which seems to be contained in the Soviet texts in Geneva, is that the Russians want to count their SS 20s against the British and French nuclear forces; they tried that tack before, in the Euro-missile talks. But Mr Gorbachev bas said publicly that he is not asking for any reduction in these forces, and has apparently indicated privately to tha French that he is not even asking for any restrictions on the size of their forces.

It is conceivable, however, that we are seeing evidence of bureaucratic disagreements in Moscow. There are certainly contradictions and inconsistencies within their Geneva texts, according to the Americans. Could the Geneva proposals represent the maximalist demands of the Soviet military, who would hava to be persuaded of tha case for a 50 per cent cut; while the Gorbachev speech conveys a hint of e more accommodating position?

The Americans have quite a litany of other complaints: for example, the Russian proposals would ban all new U.S. weapons—the Trident submarine missile, the Midgetman land-based missile, and the so-called stealth bomber—but not the two new Soviet land-based missiles. Bnt despite the complaints, the U.S. Administration has given one very clear indication that it does not consider the position hopelessly non-negotiable: for the first time, Mr George Shultz, the Secretary of State, has started talking of the contribution that Britain and France *might* have to make to the arms reduction process.

In a speech in San Francisco last week, he said: "If we are eble to get radical reductions. so we are really moving toward what the President has set out as our goal, namely the complete elimination of nuclear weapons, that when you get down to a point below, considerably below, where we are, then it can no longer be argued that the British and the French systems are an inconsequential number in comparison to the total. I might say, the Chinese need to be included in this equation as well."

In other words, if Mrs Thatcher feels entitled to urge the Americans to improve their offer in Geneva, the Americans may feel entitled to return the compliment, at least hypothetically.

In one sense the Americans have already improved their posture, at least in the eyes of the Europeans, on tha question of Star Wars testing. A few days ago Mr McFarlane declared that Administration lawyers bad re-examined the 1972 ABM treaty, and bad given the green light to all kinds of testing of exotic new anti-missile defence technologies. Outside experts contest that this is an inadmissible reading of the texts. But whatever the legal rights and wrongs, Mr McFarlane's statement provoked unproar, and President Reagan felt obliged to decide, and Mr Schultz to reasure the Nato allies, that the Administration would interpret the treaty in the strictest terms.

This is reassuring for the Europeans; but what does it do to Mr Reagan's bargaining leverage *vis-a-vis* Mr Gorbachev? It may fairly be deduced that it was Star Wars and the fear of its momentum which brought the Russians back to the bargaining table in the first place, and which induced them to offer radical cuts in offensive weapons as *quid pro quo* for a ban (or eventually curbs) on Star Wars. A speech by Mr Shultz is not the same as an international treaty, and be has yet to spell out in any detail what a "strict" interpretation of the ABM treaty would mean in operational terms. Nevertheless, it is possible that tha Russians may now feel less incentive to compromise on offensive weapons cuts.

So the question now is whether the American Administration is able and willing to regain the initiative, in negotiating as well as in propaganda terms, by making an improvement in its offer in Geneva; which presumably means offering bigger (or bigger-sounding) reductions. Its greatest fear must be that Mr Gorbachev will retain the high ground and be in a position, if no progress is made at or before the summit, to lay the blame squarely on President Reagan. Nancy would not like that.

Lombard

Services have become visible

By Christian Tyler

BANK TELLERS are replaced by cash dispensers, petrol station attendants by automatic pumps and cinemas by video-tape players. One day, perbaps, barbers will be made redundant by haircutting machines. In each case, a domestic service is giving way to a piece of internationally-traded equipment.

We are failing to see wbat is really going on in the world, according to Dr Juan Rada, the newly-appointed director of the International Management Institute in Geneva. An expert on the industrial impact of technology, Dr Rade believes the material component of "invisibles" is increasing, and so is the invisible component of goods.

For instance, the computer chipa with the biggest "invisible" element in them, tbe aort tailor-made for industrial customers, are expected to account for ebout 40 per cent of world demand for chips in the next decade.

If Dr Rada is right, then most of the clever-looking dlatinctions drawn between goods and services are artificial, or at least useless. By tha same token, politicians wbo believe—as many apparently do in Britain and the U.S.—that "services" will fill the bole ieft by e declining manufacturing industry, are being led up the garden path. The point is important, because mnch of the increase in employment in services (outside government bureaucracies) is coming from the so-called producer services.

To show we understand what is going on, wa could start by abolishing tha distinction (statistical as well as conceptual) between the primary, secondary and tertiary sectors of our economies. Dr Rada says the primary sector—agriculture and mining—is already industrialised; and now manufacturing, tbe secondary sector, is being reindustrialised by the service, or tertiary, sector.

The point has already been recognised by some of the developing countries like India and Brazil. They are very relnctant to let the General Agreement on Tariffs and Trada start negotiating free-trade rules for services. They are afraid that penetration of their markets by the big Western "service" companies would spell the end of their infant industries.

Implicit in their argument that Gatt should reinforce the rules on trade in goods, but ia not competent to frame rules for services ls the suspicion that the old theory of comparative odvantage no longer hoids water. By sufficient investment in high technology, countries can create a comparative advantage for themselves. A developing country's cheap labour is no longer a comparative advantage in a capital-intensive world.

The U.S. recognises tha point, too, but also implicitly. Why else should lts negotiators in Gatt focus so hard on trade in "services," and in bigb-technology goods? Why else raise the issues of foreign investment, industrial subsidies, intellectual property rights and counterfeiting?

By presenting the services ouestion as a trada issue, the U.S. bas succeeded in getting it at least into the margins of the Gatt debate, even if the subject ltself is looking pretty un-negotiable in the proposed new round. If it had been presented in its truc light—that is, says Dr Rada, as a foreign investment issue—there would bave been no hope at all.

The same confusion surrounds subsidies. There is a world of difference between spending money to sell surpluses abroad, as the EEC does with agricultural commodities, and the way that Japanese companies ere able to concentrate their resources to make their products unbeetable in tbeir cbosen fields.

How, for example, should we regard high-tech initiativea like President Reagan's Star Wars, a reseerch programme that could capture and exploit commercially the high peaks nf technological advence regardless of its strategic success?

The uncomfortable conclusion is that if the goods/services distinction is shallow and unreal, then the trade issues of tomorrow are far too complicated, elusive and political for the old tariff-cutting mechanism of Gatt to handle. Merely by trying to update the old rules, trade negotiators may get no further than to discover how much the nature of international business has really changed.

Letters to the Editor

Coronets and begging bowls

From Lord Selsdon

Sir,—Samuel Brittan's enjoyable article (October 17) on the report of the Lords Select Committee on Overseas Trade ieads me to wonder wbether on matters relating to trade, politics and finance I have been cunningly drip fed by misguided baked-bean-eating geriatrics.

Our report may provide a temporary battleground for the "wets and drys." Its principal purpose is to open np the debate on the future for British trade in manufactures. Inevitably it raises the issue of the crosion of our mannfacturing capacity at bome, our lack of competitiveness and the reliance of our economy upon the oil and service sectors.

Many of us would like to be convinced that, wben the benefits of North Sea oil are no longer with us, we could survive and prosper without a strong and profitable manufacturing base.

The winning of export orders for goods and equipment supplied from north of the succulent service sector of the south-east is essential for both employment and economic growth. International competition is intense, and regrettably government intervention, government aid and government-backed credits have becoma an essential ingredient in the competitive whirlpool.

To pretend that government has no role to play would be folly.

I personally, however, take great comfort from the statement of Mr Norman Tebbit, the then Secretary af State for Trade and Industry, in his evidence to our committee on June 19: "I think it is a matter for concern thar our manufacturing base should not be eroded to the extent where we can no longer offer jobs to our people and sustain the service industries whicb are in many cases dependent to a considerable extent upon it."

Selsdon,
House of Lords, SW1.

Export credit insurance

From Mr J. Friend

Sir,—If the mark of a good public relations exercise is to make totally unpalatable news completely acceptable then Exports Credits Guarantee Department can fairly claim to have scored a number of points the articla "ECGD lifts rates on exports to South Africa" October 4.

Unfortunately in making its own repeated claim that the private sector cannot match it in terms of coverage and premium it is very wide of the mark.

Export credit insurance from the private sector, especially for developed countries such as South Africa, is very often much better than that available from ECGD. Certainly if 1 per cent is now the going rate for South Africa as far as ECGD is concerned then some companies offer very much more attractive rates. As for the question of cover there are many privete sector companies who are abla to offer export credit insurance on very much more attractive terms all round than ECGD.

The view that ECGD still has an edvantage over the private insurance sector may bave been true 10 or 20 years ago but is certainly no longer the case now.

J. C. W. Friend
(Manager, Export Department),
Trade Indemnity,
12-34, Great Eastern Street EC2.

Auditors' duties

From Mr J. Smith

Sir,—In his letter on "Auditors' duties," (October 4), Mr J. C. R. Dow refers to the function of anditors as "certifying to shareholders that a bank's accounts present a true plcture of its position. . . ."

There would probably be less confusien in any discussion on this subject if those involved remembered that the auditor's main dnty in relation to annual accounts is to report on them.

In reporting whether, in his opinion, the accounts give a trua and fair view, the auditor does not certify them.

J. E. Smith,
c/o Postbus 373,
NL-2280AJ Ryswyk,
Netherlands.

Commercial radio

From Mr B. Waters

Sir,—Antony Thorncroft's survey of radio advertising (October 16) is extraordinary for its omissions. True, he plots the recent decline in Independent Broadcasting Authority commercial radio advertising; he refers to some of the reasons for the decline in audience and to tha inflexibility of the governing regulations.

But somehow be manages to evoid reference to the two most popular commarcial stations broadcasting to Britain — Caroline and Laser. True, their advertising revenues may not be published, but it is the governing regulations of tha IBA which make the offshore stations more consistent, professional and popular.

Is it not ironic then that it is only legal for non-British advertisers to take advantage of them (on Caroline, Nikon, Newsweek, Hawaiian Tropic, for example)? Caroline bas been broadcasting for over 21 years from a ship. Is it not time for it and othar national stations like it to be allowed to give British audiences the standard of choice in radio long enjoyed in North America, and give radio advertising a real opportunity to make that element of the licence fee redundant?

Brian Waters,
Boisot Waters Cohen Partnership,
64 Wilton Road SW1.

UK defence procurement

From the Defence Correspondent, Union of Independent Companies

Sir,—There is no question that Mr Peter Levene's work in defence procurement (October 9) is of considerable importance both to tha pursuit of "valua for money" and to the future development of the economy of a wbole. Recent research in the UK and the U.S. has demonstrated tha link between defence spending and the devalopment of job-generating small high technology firms central to the economic recovery of the UK.

The move towards "fair" competition at systems and sub-contract level is to be welcomed. Mr Levene's conviction that the largest failing in MoD'a pursuit of "valua for money" has been in the extensive use of cost-plus contracts is correct. In practice these represent a direct subsidy from the tax payer and encourage inflation-led pay settlements.

Effective competition, however, only exists wbere the firms best able to supply are given eccess to the market. A number of factors conspire against that—not least the unrestrained transfer of economic powar to the primes whicb is often described as "inviting the wolf to babysit." The new contract terms proposed by Mr Levena will help if they are monitored and enforced.

The lack of an effective mechanism for the distributioo of market information means that the system effectively selects it's suppliers on the basis of communications ability. Research has demonstrated that simple measures to increase the transparency of defence markets would double the number of firms willing to compete and encourage selection on the basis of manufacturing ability.

The time is passing when we can view UK markets in isolation. There is a new emphasis on collaboration and the development of a European defence market.

J. Forrester.
Mitra House,
44-46 Fleet Street, EC4.

Sugar and the EEC

From Mr G. Taylor

Sir,—I note (October 16) that Tate and Lyle's next withdrawal will be from Belize. As one of 2,500 former cane sugar refinery workers in Liverpool I bave some sympathy for the cane farmers you describe. I have never understood why the EEC prefers beet sugar. Relative to cane it is difficult to grow, low yielding and tricky to refine. Sugar is one of the few basic raw materials in which developed and third world countries compete as producers.

So what do we do? Selfishly insist on our inferior beet. Moreover, our farmers surely have many alternatives to beet, which are more successful; whereas the growers of Belize doubtless have few alternatives as satisfactory as sugar cane. To my list of strange things south of Watford Gap, I add Brussels.

G. S. Taylor,
41 Argarmeols Road,
Formby, Liverpool.

Losing the game

From Dr A. Romeo.

Sir,—I am writing in reference to the article (October 10) on "How the Japanese write their nwn rules of the game."

Although I found the article of considerable interest, I was somewhat dismayed by the "baseball metaphor" in paragraphs one and two. The terms "end-runs" and "quarterback sneaks" are not from baseball but rather from American football. Also, the phrase "winning many more runs" is inappropriate. In baseball, teams "score" runs; they don't "win" them. They win (or lose) games.

As an expatriate American struggling to understand games like cricket, I can sympathise with the less than full understanding of the terminology of baseball. When in a position of limited knowledge, however, one is perhaps best advised to avoid such metaphors. Their use just doesn't seem "cricket."

Dr A. A. Romeo,
Unilever UK Central Resources,
P.O. Box 68,
Unilever House,
Blackfriars, EC4.

FINANCIAL TIMES

Monday October 21 1985

Terry Byland on Wall Street

Spotlight back on electricals

AS Wall Street struggles to decide whether its present run of optimism is a harbinger of a renewed bull market, or just a case of takeover frenzy, major investors are taking a fresh look at the electrical utility stocks which took such a battering four months ago.

Indeed, it is hard to see why the sector should remain so firmly out of fashion, for the fundamental factors look highly favourable for the electrical utility companies. Interest rates, having fallen sharply earlier in the year, are still low and will fall further if the G5 plan for the dollar proves effective. There are signs of an economic recovery in the U.S. which will show itself quickly in the form of increased usage of electric power. And, most importantly, inflation in the U.S. remains low.

Yet, the Dow Jones utilities average, which takes in the telephone stocks as well as the electricals, is 8.5 per cent off its peak, compared with only 4.3 per cent off for the Standard & Poor's 500 and new peaks for the Dow industrial average.

One reason is the violence of the July sell-off in utilities which brought the biggest one-day fall in utility stock averages for more than two decades. Sellers were essentially securing profits – stocks had

Company	% below peak	% Yield
Consol Edison	10.5	7
Duke Power	5.7	7.8
Dow utilities avg	8.57	9.11
Dow indust. avg	0.03	4.50

gained up to 20 per cent since the beginning of the year and were selling at eight times estimated 1985 earnings on a yield of 8.4 per cent.

With many other industrial stocks in the doldrums at that time, investors took profits out of the utilities on the first whispers that short-term rates might be about to rise again.

Now, with many utility price earnings ratios around 7.5 and some below 7, and yields returning towards 9 per cent and 10 per cent, the sector more rationally rated against the S & P 500 p/e of 11.89 and yield of 4.26 per cent.

There is wide divergence in ratings of electrical utilities, however, which reflects a range of potential for earnings, customer rates and investment costs among the leading names.

The industry obtained only about 52 per cent of the rate increases it sought during the first nine months of the year. Rates allowed permitted about 14.81 per cent based on common stock of the industry, about a full point below that sought by the utilities.

These rates indicate that not all companies will be strong performers over the next two years. After somewhat pedestrian performances from the electric utilities in the first half, Wall Street is not looking for fireworks this year – estimates range to a gain of 1 per cent over 1984. Next year, however, the analysts look for an average gain of about 3 per cent, with a substantial gap between those at the top and those at the bottom.

Consolidated Edison, for example, remains a prime stock for most brokerage houses, but may well turn in lower profits this year. With 80 per cent of its earnings generated by selling electricity in New York. The company was hit by the city's curbs on air conditioning this summe – also, paradoxically, a relatively cool summer.

But in 1986, Consolidated Edison could regain ground strongly, pushing earnings up by more than 8 per cent. The company is a good dividend payer, and, like many other utilities, has ample generating capacity, after completing a building programme.

Another likely to benefit from completion of a construction programme is Duke Power, with added success of bringing its nuclear powered plant into commercial production, thus ending exposure to the risks involved in nuclear construction.

Elders poised to launch £1.75bn bid in Britain

BY MARTIN DICKSON IN LONDON

ELDERS IXL, the Australian brewing, agricultural services and trading group, is expected to launch Britain's biggest ever takeover bid today with an offer worth about £1.75bn ($2.47bn) for Allied-Lyons, the food and drinks conglomerate.

Elders, which has a market capitalisation about a quarter of that of its target and which holds 6 per cent of Allied's shares, first signalled its intention to bid six weeks ago and since then has been trying to find international partners for a consortium that would divide up Allied.

The Australian company is most interested in acquiring Allied's brewing interests, which include Ind Coope, Double Diamond and Skol lager.

But despite this long search there were doubts last night that Elders had found any firm partners.

The speculation was that it might well launch a bid on its own at around 250p to 260p a share, valuing the whole group at around £1.75bn. That compares with an Allied closing price on Friday night of 275p a share. British analysts believe a successful bid for the group would have to be pitched nearer 350p a share.

However, an initial Elders bid around 250p might prove just a sighting shot, giving the Australian company more time to seek consortium partners and to find out whether the bid will be referred by the UK Government to the Monopolies and Mergers Commission.

A group of international banks, co-ordinated by Citicorp of the U.S., has arranged loan commitments enabling Elders to make an offer of its own around 250p. It is thought that any offer today might include a Citicorp loan note issue to make the package more attractive to institutions.

Elders, which brews Foster's, Australia's leading lager, has attacked Allied for having beer brands which are "tired" and for being second best in too many of its markets.

Allied, which sent a letter to its investors on Friday urging them not to help Elders by selling their shares, says it is an "outstandingly successful and valuable British company," and has accused the Australian group of making "ignorant jibes."

Leyland scales down plans in new bid for Bangkok contract

BY CHRIS SHERWELL, SOUTH EAST ASIA CORRESPONDENT

A CONSORTIUM led by the UK state-owned Leyland vehicles group, whose bid to revamp Bangkok's bus system was dramatically halted by the Thai Government last week will today make a last effort to save the contract. It will submit revised proposals, worth £94m ($134m), less than a quarter of the original £385m deal.

The British team's new proposals involve the supply of 770 high-capacity double decker buses for use on selected routes in the Thai capital, the construction of depots and workshops, and management and technical assistance.

A key feature of the bid is that the British Government's £20m aid contribution towards the deal remains on the table, magnifying its effect several-fold. The consortium also contains generous offers on counter trade and Thai local content.

The net foreign exchange cost to the Thai Government is reckoned to be just £42m, which should be attractive given the urgency of the financial crisis confronting the debt-ridden, loss-making Bangkok Mass Transit Authority (BMTA).

The original ideas will, meanwhile, not be altered; as Leyland points out, these have already been technically evaluated and approved. As a result the Thais would have an option to implement the original deal if this first phase proves a success and the economic situation permits.

The revised plan, which would be carried out over two years, follows urgent consultation between the consortium – which links Leyland Bus, the National Bus Company and MVA Consultants – and the UK Government, notably Mr Paul Channon, the Minister for Trade, who was in Bangkok last week, and the Department of Trade and Industry.

At stake is the future of Leyland Bus, which had stood to win one of Britain's biggest ever manufacturing export orders and will see more job losses if no business is won in Thailand.

Either way Leyland maintains that the BMTA itself will be in a better financial condition as a result of the revised deal, and this would make possible its privatisation, another proposal considered by the Thais.

The proposals will be handed to the Communications Ministry today, one day ahead of the next Thai Cabinet meeting. Mr Ian McKinnon, managing director of Leyland Bus, is meanwhile on his way to Bangkok to back the bid.

The speed with which the new deal was put together is an indication of the co-operation between the consortium and the UK Government – co-operation which by all accounts was sadly lacking before last Tuesday's fateful meeting of the Cabinet, which decided the deal would add too heavily to the external debt. But the contract still remains difficult to secure.

EEC ministers urged to give lead on Treaty

Continued from Page 1

treaty on human rights, while both Denmark and the Netherlands have proposed changes to regulate EEC aid policy.

Today's debate will centre on the proposals on decision-making, intended to make it feasible to remove all remaining national barriers to a single internal market by 1992; and on the plans for the European Parliament and the Commission.

Luxembourg, currently holding the EEC presidency, wants a decision on which line of reform to follow. On the one hand there is the Commission approach, which would require all decisions on principle and broad strategy to be unanimous but all decisions on implementing policy to be taken by majority voting.

The alternative approach has been put forward by France, which would leave key decisions on the internal market to be unanimous, unless the European Parliament had voted in favour of the particular move. In the latter case the member states would then vote by qualified majority, thereby if necessary outvoting one or two individual governments.

Reforms affecting the European Parliament are likely to be even more hotly disputed, with Italy suggesting the most radical change – an effective power of veto in key areas – and Denmark, Britain, Greece and indeed France all much more cautious.

The problem for the ministers is that in the end all their decisions for full-scale treaty amendment have to be unanimous, and their divisions remain deep.

Pantry Pride offers $1.8bn for Revlon

BY TERRY DODSWORTH IN NEW YORK

PANTRY PRIDE, the Florida-based supermarkets group, returned to the attack in its bitter takeover battle for Revlon at the weekend with a revised tender designed to top the rival leveraged buy-out bid for the cosmetics and health care group.

The new all-cash Pantry Pride offer increases its previous bid of $56.25 a share to $58 a share, slightly over the $57.25 a share offer from Forstmann Little, the New York-based investment partnership which specialises in leveraged buy-outs. It puts a value on the company of a little more than $1.8bn.

Pantry Pride said that its revised offer was not subject to any financing conditions, but was dependent on an injunction being granted against a "lock-up" option given by Revlon to Forstmann Little.

This provision, designed to thwart an alternative takeover, gives Forstmann Little the right to acquire the company's Vision Care group and National Health Laboratories for $525m if any person or group acquires 40 per cent of Revlon. Companies often grant such rights in takeover battles when the board believes that it has secured the most suitable bid for the assets and wants to freeze out alternative proposals.

The new Pantry Pride offer comes after a spate of Wall Street criticism of the complex Forstmann Little buyout proposals, which originally involved a plan for Mr Michel Bergerac, chairman of Revlon, to take an equity stake in the division acquiring the profitable health care operations. Mr Bergerac subsequently dropped out of the equity group.

Craxi may be asked to form new government

Continued from Page 1

Mr Whitehead told Sig Craxi that the Italian decision about Mr Abu Abbas was not sufficiently understood or correctly assessed by the U.S. Administration, and that the U.S. reaction may have been too hasty.

Sig Craxi's standing has not been damaged by the fall of his government. Rather, it has been greatly strengthened, both by his bold exposure of the overbearing U.S. treatment of Italy during and after the hijacking, and by the tacit U.S. admission that it may have been partly in the wrong.

That should make the domestic political crisis easier to solve because it cuts ground from under the feet of Sig Giovanni Spadolini, the leader of the Republican Party and former Defence Minister, who brought down the Government on issues that the U.S. appears prepared to forget.

Montedison reshaping

Continued from Page 1

the plan for a change in the shareholding structure of Montedison.

That virtual declaration of independence by Montedison from Gemina is the equivalent of a palace revolt in Italian finance. The overall change in Montedison's shareholding structure is to be accomplished – according to senior executives at various companies, who asked not to be named – in several stages.

Next spring or early summer, Montedison will launch a rights issue of about L400bn. That will come some months after Montedison reports its first profitable year for a decade. It will be designed to increase share capital from L1,100bn to L1,500bn. Present group debt is around L4,500bn.

Gemina, which is 26.9 per cent owned by Fiat, is not expected to subscribe for any more shares. Sig Gianni Agnelli, Fiat chairman, said last month that Fiat was not interested in "a permanent presence" in Montedison through Gemina.

It has, meanwhile, been learned that if a suitable buyer can be found for Gemina's 17.1 per cent Montedison stake – valued at L404bn at current stock-market prices – it will be sold. If not, the Gemina stake in Montedison would in any case be diluted by its not taking up its rights.

A shareholders' consortium to be led by Sig Gardini's Ferruzzi Group would subscribe for much of the Montedison equity issue, boosting its effective stake to 15 or 20 per cent and thus making it Montedison's largest single shareholder.

UK job cutbacks given higher priority

By Malcolm Rutherford in London

LABOUR saving has become an even more important factor in the investment planning of British companies than it was two years ago, according to an extensive poll of senior directors conducted for the Financial Times by Marplan at the end of last week.

Only 9 per cent of respondents said the need to save labour mattered less now than it did in 1983. Half said it mattered more. Nearly 80 per cent of the companies polled replied that they were not yet thinking of increasing their payroll.

The findings also suggest that only 18 per cent of companies have taken steps in the last year or so to employ more members of the ethnic communities – a matter now under study by the Home Office. Only 11 per cent are planning any further steps.

In their investment decisions, relatively few companies pay much attention to maintaining local communities that may be dependent on them. Twenty-one per cent said they paid "a lot" of attention, although the figure rose to 37 per cent in the north of England. Thirty-one per cent said they paid "some" attention and 41 per cent said that they paid "not very much."

Main obstacles to company expansion (percentages)	
Lack of markets	47
High interest rates	30
Exchange rate	25
High labour costs	13
Lack of mobility in labour force	6
Lack of available skills	18
Resistance by trade unions	5
Others	21

Easily the biggest option to company expansion was listed as "lack of markets" – by 47 per cent of respondents. Next came high interest rates (30 per cent) and the exchange rate (25 per cent).

Lack of available skills was mentioned by 18 per cent and high labour costs by 13 per cent.

Most companies appear unworried about their recent wage settlements. A total of 73 per cent said that they were "just about right," 11 per cent said that they were "not sufficiently differentiated," 9 per cent said "too high" and 5 per cent "too low."

Of those that said that they were "too high," 40 per cent named "trade union pressure" as the main reason, 31 per cent "recent profits growth" and 20 per cent "weak management."

There was a deviation in the banking, finance and insurance sector, where 21 per cent of those polled said settlements were too high.

Otherwise there were few variations in the responses to the questions between regions, between sectors or the size of the company.

Respondents were asked by what percentage labour costs per head would have to fall for their company to consider employing more people – "less than 10 per cent" or "more than 10 per cent." One fifth said "less than 10 per cent" and one quarter said "more than 10 per cent." The rest refused to commit themselves.

On the question of whether Britain should become a full member of the European Monetary System, 63 per cent were in favour, 24 per cent against and there were 11 per cent "don't knows."

There was an almost even split on whether Britain should go in at the present £-D-Mark exchange rate (around DM 3.75). Forty per cent said "yes," 42 per cent said "no," and the "don't knows" rose.

The key question about future employment prospects was: "Is labour-saving a more or less important consideration in your investment planning than two years ago?" Half said "more," 39 per cent said "about the same" and only 9 per cent said "less."

While 39 per cent said that they were "giving more thought to increasing their company's payroll," 59 per cent said they were not.

The response to the question about employing more members of the ethnic communities was striking in that there were only around 2 per cent "don't knows." Eighty-one per cent said that no steps had been taken in the last year and 87 per cent said that no further steps were planned.

The banking, finance and insurance sector was a slight exception, in that 17 per cent said that further action was under way.

Marplan interviewed a representative sample of 505 company directors on October 17–18. The companies were selected at random from the Dun & Bradstreet market facts file. Interviewing was conducted by telephone.

THE LEX COLUMN

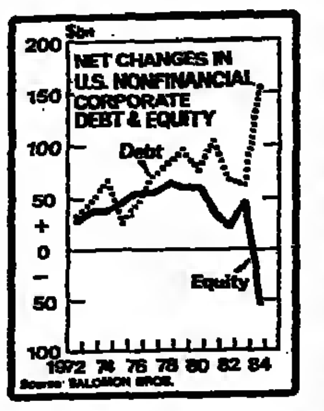
Gearing up on Wall Street

Takeovers in the U.S. are no longer the prerogative of large and rich corporations with big board listings and triple-A credit ratings. The most ordinary, self-styled entrepreneur can exert enough leverage to shift the management and ownership of practically any U.S. corporation smaller than General Motors. Relying on the unlimited quantities of of junk bonds, always unrated and often of dubious quality, any financier with enough nerve can bid for almost anything. The game is to buy a company on easy payments secured by its own assets, turning the equity into debt.

Under these rules Wall Street has been enjoying the luxury of a chronic stock shortage, as far more equity is taken off the market than issued, whether by takeovers or voluntary stock buy-ins. In the process equity prices have been reaching successive new peaks in the face of modest economic growth assumptions and increasing caution about 1986 earnings. Conventional theories of equity valuation, based on the anticipation of earnings and dividends, have been given nearly as thorough a shaking as the managers of America's most tired and insecure conglomerate (whichever that may be).

If it were not for takeover frenzy – typified by Friday's emphatically-denied rumour that General Electric (U.S.) and Schlumberger were combining to dismember Litton Industries – it is likely enough that the market would by now be showing signs of strain. When the narrowly-based Dow Jones industrial average peaked last week, it was accompanied by only a thin sprinkling of stocks reaching their 1985 highs, the majority connected with takeover speculation. Similarly, the market's advance appears to have been concentrated mainly in those sectors, such as branded foods and cosmetics, where the bid activity is at its greatest.

The takeover boom has given a new edge to the old saw that the value of a share is what the market says it is. For the general market assumption now seems to be that a share is properly valued only if the chance of a takeover is fully discounted. The consequences of this assumption are the sharper because the takeover premium now appears to be set by the often startling price at which a leveraged deal would produce a breakeven return, even allowing for the high cost of



funds implied by raising the finance largely through issue of junk securities.

This effect is seen at its starkest when the assets under attack are largely intangible; such as the brand names owned by Revlon and bid for by a shell-company, Pantry Pride, in paper of ever-increasing yield. When the bids come from corporations that are using real money – as in the many-cornered battle for Richardson Vicks – the bidder's valuation sums are still bound to start from the premise that an auction may be won by an ostensibly higher bid financed largely by junk.

In this sense there is yet again a two-tier market in U.S. stocks, although this time the division is not that between high-growth/high-multiple shares and the ruck, valued mainly according to yield. The critical boundary now lies between the mass of stocks, priced close to book value on the basis of their expected earnings, and the pockets of market inefficiency where the sharp-eyed can discern "value" – current Wall Street shorthand for a discount deep enough to justify the risks of a leveraging operation.

Higher returns

The theological case of this approach is that the discounts only occur because managements have been so careless of the shareholders as to leave their equity undergeared – thus failing to maximise the return on shareholders' funds. If someone can come in with a bid that closes up the discount, shareholders ought to take the money and run. Whatever the merits of this argument, by bringing outside leverage to bear on this undervalued portion of the market, it is clear that takeover activity does jack up the overall return on shareholders' equity in the U.S. markets.

Apart from precipitating a wholesale retirement of stock, thus helping to tighten the market, there is a mathematical benefit to earnings. Transforming a company's equity into debt replaces the after-tax dividend stream with a tax-deductible interest burden without going the whole hog, a judicious buy-in programme is good for the look of an earnings statement. And that is something which Wall Street is likely to reflect in higher share prices, even if the lift to earnings provokes no inflation of P/e multiples.

Tax benefits

Since there is by definition always going to be part of the equity market in which returns are below the mean there is no obvious point at which the process of levering them up must come to an end. With a structure of bond yields which encourages everybody to borrow short, and a tax system which makes the real cost of that borrowing less painful than it appears, it does not appear that the process is about to be choked off by the credit markets either. But it is conceivable that a takeover boom in the subnormal end of the corporate sector could boil away for years on end without doing much for the overall rating of the market.

If it is fuelled by an expansion of debt, however, the structure created by a series of constantly larger takeovers threatens to become increasingly rickety. In a U.S. economy where the well-known growth of federal debt is being paralleled by an historically abnormal growth in the debt ratios of the personal and company sectors, an obvious price is increased vulnerability to shocks. Where individual deals are being put together without a safety net – on the explicit admission that the debt being issued cannot be serviced without squeezing higher cash flow out of the business after it has been knocked down – the risks are particularly acute.

In anything like a traditional recession, a lot of speculative construction work stands to be cruelly exposed. It is no doubt just as well that recession is nowhere to be seen in the economic projections of Wall Street.

World Weather

		°C	°F			°C	°F			°C	°F			°C	°F
Ajaccio	F	22	72	Dubrovnik	C	18	64	Malaga	S	23	73	Salzburg	S	13	55
Akrotiri	S	23	73	Faro	S	23	73	Malta	S	23	73	Seoul	F	15	59
Algiers	S	26	79	Florence	F	18	64	Manila	F	33	91	Singapore	R	31	88
Amsterdam	S	14	57	Frankfurt	S	12	54	Miami	C	28	83	Stockholm	S	11	52
Athens	F	19	66	Funchal	F	22	72	Milan	C	15	59	Strasbourg	S	13	55
Bahrain	F	34	93	Geneva	S	11	52	Moscow	C	6	43	Sydney	F	18	64
Bangkok	F	33	91	Gibraltar	F	21	70	Munich	S	11	52	Taipei	C	27	81
Barcelona	F	20	68	Guernsey	S	14	57	Nairobi	C	25	77	Tangier	S	27	81
Beirut	C	23	73	Helsinki	S	9	48	Naples	F	20	68	Tehran	—	—	—
Belgrade	C	10	50	H. Kong	C	24	75	New Delhi	F	32	90	Tel Aviv	C	23	73
Berlin	C	11	52	Innsbruck	S	12	54	New York	C	24	75	Tenerife	—	—	—
Biarritz	S	20	68	Inverness	C	12	54	Nice	S	22	72	Tokyo	C	17	63
Blackpool	C	12	54	Istanbul	S	16	61	Oporto	F	18	64	Toronto	F	14	57
Bordeaux	S	19	64	Jersey	S	14	57	Oslo	C	13	55	Tunis	S	24	75
Brussels	S	13	55	Jo'burg	—	—	—	Paris	S	14	57	Valencia	C	22	72
Budapest	F	13	55	Las Palmas	S	24	75	Prague	F	8	46	Venice	S	15	59
B. Aires	F	20	68	Luxor	F	19	66	Reykjavik	F	5	41	Vienna	F	11	52
Cairo	C	25	77	Lisbon	S	20	68	Rio de J'o	F	30	86	Warsaw	F	9	48
Cape Town	S	24	75	Locarno	C	14	57	Rome	S	23	73	Zurich	C	9	48
Caracas	F	28	83	London	S	15	59								
Casablanca	S	22	72	Los Angeles	C	26	79								
Copenhagen	C	11	52	Luxembourg	S	11	52								
Corfu	C	17	63	Madrid	S	21	70								
Dublin	C	14	57	Majorca	F	22	72								

Readings at mid-day yesterday.

C–Cloudy D–Drizzle F–Fair Fg–Fog R–Rain S–Sun Sl–Sleet Sn–Snow T–Thunder

SECTION III

FINANCIAL TIMES SURVEY

Computers in Banking and Finance

Banking is moving beyond back-office electronics and automatic tellers into the critical area of machines allowing customers direct access to accounts

Swimming with the electric tide

By Alan Cane

THE electronic earthquake has passed, leaving the foundations of the banking world shaken but intact. The tidal wavo of new service opportunities which followed is still roaring across the financial countryside.

Bankers and their contemporaries in other financial institutions have by now got more than their feet wet. They are in over their heads and swimming with the tide—some more strongly than others.

Among the old guard there is still unhappiness and uncertainty. A study by the management consulting arm of accountants Touche Ross International, which earlier this year examined banking technology in 26 countries, revealed that senior bankers are disappointed with the impact of new technology on the banking industry in spite of the massive sums invested.

Thoy were depressed that they were unable to use technology to achieve a lasting competitive advantage over their principal competitors and they found they had failed to achieve the expected economic returns through reduced operating costs or through fees for new services.

Significantly, however, the bankers who expressed most disappointment with technology were those who had spent their money on yesterday's solutions—who had let the technology lead them rather than vice-versa.

Winners in the banking technology stakes were those who had exploited the technology to meet market needs. Touche Ross notes: "The more successful banks have taken a market-driven approach to organising their people and technological resources. Market-based organisations have been established and give direction to or have actual control over technological resources.

"This approach improves the alignment of costs and revenues with markets and establishes direct responsibility for results."

To a large extent it is falling to the younger managers, more aware of what the technology has to offer and more flexible in their approach to the market who are beginning to show the way.

The evidence supporting this conclusion includes the appointment last year of Mr John Reed as chairman and chief executive of Citibank in succession to Mr Walter Wriston. Citibank is one of the most innovative of the big banks technologically and Mr Reed's name is inextricably linked with its aggressive approach to consumer banking using all the technology at its disposal.

The scale and diversity of what is happening as the world's finanical institutions take automation on board is making a confusing, if exciting, picture.

The state of play is roughly as follows:

All the major banks and financial institutions have efficient and competent "back office" automation.

That means they have computerised most if not all of their accounting and transaction processing functions, shedding labour in the process. This has been developing steadily since the banks first started to instal computers in the 1950s and 1960s.

For all their staid ways, banks world-wide are usually the bell-wethers of commercial data processing. They have the money to buy and experiment with new equipment and they understand the economics of automation. A report from the consultancy Pactel indicated that UK bankers are among the most advanced groups in the use of expert systems—ways of using artificial intelligence to provide an automated "advice service."

Belgian banks which are among the most advanced in electronic banking, are collaborating with software houses to develop and sell expert systems.

Back-office automation left the banks with a massive information processing capability, but of a peculiarly inflexible kind. Most of the big banks have installed IBM mainframes, best suited to processing large batches of data at high speed. From 1970 onwards, however, with the development of micro-electronics and cheap computing power, the environment changed sharply.

It became possible to provide automated machinery at a reasonable cost for staff in the branches and even for the customers to operate themselves. This kind of development has massive implications for the fabric of the financial world.

The need for a physical presence, for a High Street site, is removed at a stroke. A bank or building society can be anywhere there is room to instal a computer terminal.

There is no need, perhaps, even to instal a terminal. This year Citicorp, parent of Citibank, said it was testing a palm-sized personal computer terminal that would allow its customers in the U.S. to do business with it without entering a bank.

The terminal can be plugged into a telephone to allow the customer to check a bank balance, transfer money between accounts, look up recently written cheques and pay bills.

The "bank-in-your-pocket" is, for most people, something for the future. But the new economies of scale in computing power did make possible the development of extensive networks of automatic teller machines ("banks-in-the-wall"), high-speed cash dispensers, and counter terminals to help the cashier and branch processing systems to provide customer information swiftly for managers.

On the wholesale side, it made possible aids for the banks' foreign exchange and money markets dealers, electronic cash management systems and inter-bank messaging and communications.

As Touche Ross points out, the name of the game changes with the introduction of these services. "A major emphasis is reducing branch labour and automating branch operations," the report says. "The basis for investment begins to migrate from cost reduction to maintenance of market position."

Most critically it points out: "In most cases, the centralised data processing function maintains control over technology strategies. As a result, the technology implemented often does not meet customer needs."

Batch-orientated computing is not suited to these transaction-orientated operations. New computing systems have had to be installed: new data communications networks to handle the volumes of traffic expected.

As the financial institutions invest in this new capability, the drawbacks and disadvantages have begun to make themselves apparent.

This year the Bank for International Settlements (BIS) warned of the dangers of hardware malfunctions, power supply failures, and industrial action where automated funds transfer systems were involved. Most banks, it pointed out, can no longer rely on manual procedures as a fallback security measure.

"With international banks operating in most of the world's banking centres, the technical inability of a bank to fulfil its commitments in one centre may interfere with final settlement systems elsewhere."

All of which is the reason there is so much interest in what are called "fault tolerant" computer systems for banking operations. The most popular manufacturer of these machines is still Tandem of the U.S., although Stratus, another U.S. company is also beginning to make its name in banking circles.

Tandem and Stratus computers have been specified for systems which involve providing an "electronic window" into a bank's main data files.

This is perhaps the most critical technological question that bankers face. Virtually all the new and powerful delivery mechanisms they see as the key to their futures depend on direct transactions between the customer at a terminal and the bank's own files.

Enthusiastic

The thought is enough to give most bankers apoplexy. It is a little like letting a monkey with a quill pen loose on the old accounts ledgers: there is no knowing how much damage could be done.

It seems, however, that although there is massive activity in the banks, building societies, trusts and so on, and although suppliers are offering a cornucopia of new products, progress in some of the key areas may be slower than expected.

Electronic funds transfer at the point of sale (EFT/POS), the replacement of cash and cheques with a plastic card, is one example. The banks are enthusiastic because they see it as a way of cutting costs. Retailers are dubious about the benefits, and the public sceptical or apathetic.

The same seems to be true of banking from home in the UK and U.S., although progress has been rapid in West Germany and France.

Even in the heart of London's finance industry, much of the City seems unclear about what sort of technology it should employ and why.

After the earthquake and the tidal wave, there is still electronic culture shock to be overcome before the cashless society can be said to have arrived.

Trevor Humphries

Batteries of computer-aided equipment dominate the modern office, like the international dealing room of Hoare Govett, in London (above) showing gold and mining shares manager Richard Robinson in full flow

Contents

The rush to get on-line

Developments in the UK

ALAN CANE

IT USED to fit inconspicuously into the Management Services Department. Now if you telephone any of the UK clearers with a query about cashless shopping or down-time on cash dispensers, likely as not you will be put through to "Electronic Banking."

The big U.S. banks, led by Citibank with Bank of America, Chase, Chemical—and the rest in hot pursuit—have boasted such refinements for some time now, but it is comparatively new to the UK.

Yet these new electronic banking departments are more than mere affectations, pale copies of their aggressive American counterparts. UK banks and financial institutions are at last taking electronic financial services very seriously.

One critical piece of evidence is the planning and financial resources now being poured into high capacity data communications systems, the networks needed to support the substantially higher volumes of business expected with the growth of automated teller machine links, branch processing capabilities and Saturday opening.

The resources needed are huge but there is no alternative. Earlier this month, Barclays announced it was going to spend £40m over five years to create a new, country-wide data communications network. The funds are being split roughly three ways between British Telecom which will provide the telecommunications lines, IBM and the Canadian telecommunications company, Northern Telecom.

Virtually every area of the UK financial scene is currently in ferment over new technology from insurance companies banding together to inform themselves about expert systems—the Aries project—to the worried baste in the Stock Exchange as members and the Exchange itself hurries to put in place effective automation before the "Big Bang" in October 1986.

There are four areas, however, where banker's minds and the minds of the leaders of other UK financial institutions are particularly concentrated.

The first is the development of on-line real time systems. This represents the biggest task, at any rate for the banks. Other smaller, more agile organisations are often at an advantage here.

The TSB Group, for example, claims to be the only bank in the country to offer an on-line real time computer system capable of providing instant, up-to-date account information to branches and customers.

According to TSB: "The system is also ideally suited to future developments such as electronic funds transfer at the point of sale, reciprocal arrangements between banks for the use of cash dispensers and home banking."

Why should the TSB and others seem to have an edge?

Despite the occasional error, the big banks have got back-office automation licked. The problem is that requirements have changed and the systems so well tuned to batch accounting are slow and ungainly when faced with the need to provide up-to-date information immediately.

On-line means the computer is connected directly to a terminal from which a bank staff member or a customer is making a request for information. Real time means the information is delivered immediately and directly from the bank's computer files.

Such a way of working presents the banks and other financial institutions with a number of problems. First, their mainframe computers were designed to process large numbers of records at high speed in batches. They were not designed to be interrupted continuously to provide information or accept new data.

Second, the banks have to decide how best to let their staff and their customers see into their records; how best, in fact, to provide an "electronic window" into all the information they have stored.

Why should it be necessary at all? An important reason is that the growth in transaction volumes from wholly automatic devices like automatic teller machines, cash dispensers—especially when they are linked into large networks—means that an institution's exposure can change dramatically without it being aware of the fact unless it is monitoring its position on-line in real time.

The second major theme is inter-institutional charges for shared services. The best example is probably shared ATM networks. Full feature ATMs pay out cash, deliver account information, take orders of cheque books and statements and can be programmed to provide other services.

All the clearing banks have extensive networks of their own, and Barclays and Lloyds and Midland and NatWest have reciprocal agreements for the dispensation of cash from each others machines if not for the transfer of account information.

Building society plans to challenge the bank's with a substantial shared network fell apart when the bigger societies claimed they would be shouldering most of the costs for a disproportionately small share of the benefits.

Now a number of ATM sharing networks have been announced involving building societies, savings banks, and other institutions. Now many of these organisations are beginning to learn that reciprocity does not always make you money.

The benefits, in fact, are frequently biased in favour of the smaller partners. But the equation for whether they should be charging each other for reciprocity agreements and how much, is complicated by the fact that some of these expensive facilities are so underutilised it is worth low reciprocity fees to encourage use.

The third theme is the question of the "electronic window" into the bank's own computer files. It is most acute in the case of corporate cash management. The UK clearers all provide electronic cash management services through third party vendors — computer bureaux offering a data network and software to extract information from the bank's computers and format it for the customers.

The disadvantage with such an operation is that the customer is restricted to the formats provided by the bureau. Furthermore, costs of the service can rise dramatically with use.

The same is true of conventional bureau-based data processing. In the late 1970s ADP, a U.S. bureau, and others solved the problem with a solution it called "on site." It provided the client with a powerful computer, on his own premises, for his own use, backing up where necessary with bureau services.

Now companies are providing an analogous service for the financial community. NatWest, for example, has been the first European bank to take a cash management service called "Nets" from the U.S. bureau NDC. It involves a Tandem computer on its own premises with special software to retrieve information from the mainframe files.

Another system, Forte, marketed in the UK by the CAP group is expected to be sold to another UK clearer within the next few months.

The fourth trend is towards the purchase of packages. Nets and Forte are packages. The Midas, a banking package which has far outgrown its foreign exchange origins, continues to be the biggest seller internationally.

ATMs are controlled by software like ON2 and Base 24 supplied as packages. The days of the big bank data centre with armies of programmers creating bespoke software for the bank's special requirements would seem to be numbered.

NEW FOREIGN EXCHANGE SYSTEM AT AIRPORTS

Midland Bank's international division has selected new foreign exchange counter terminal systems, worth £300,000, for its branches at Gatwick (above) and Heathrow which are open 16 hours a day, every day of the year.

The first airport installation of the ISC "Pinnacle" system has been operational at Gatwick arrival hall since June where the Midland branch handles an average of 2,000 transactions daily for the purchase and sale of foreign currencies.

The ISC system can process transactions in a hundred different currencies and print receipts. In all, some 40 different types of transaction—including domestic banking—are controlled by the system which is claimed to speed-up end-of-day balancing across multiple currencies and provide rapid, comprehensive branch reports.

Installation of the second "Pinnacle" system at Midland Bank's Heathrow branch is expected by the end of this year.

● ISC Systems (UK), based in Milton Keynes, is a subsidiary of ISC Systems Corporation of Spokane, Washington, which now has a turnover of £150m a year. Among its customers are 117 U.S. commercial banks and more than 1,500 thrift (building society) clients. In the UK, ISC users include the Peckham Building Society, Midshires Building Society and Principality Building Society.

Slow advances on a bumpy road

West Germany

JOHN DAVIES

FOR THE most part, West Germany's bankers are still inclined to give the benefit of the doubt to the country's videotex system, Bildschirmtext (BTX). Although disappointment and criticism are widespread, many bankers still believe that BTX has the potential to play an important role in developing the country's electronic financial services.

But the snail-like pace of BTX shows just how long and bumpy the road to a cashless society is proving to be. It has served to reinforce the cautious approach which many in the West German banking community adopt to visionary technological schemes.

The original concept of BTX as a mass medium has long since given way to a more sober view. After all, it has only a modest total of about 32,000 users, with the number growing by about 800 to 1,000 a month.

Via ordinary telephone lines, users are able to call up data from about 3,800 information providers through the sophisticated computer network which IBM has set up for the Bundespost, the postal and telecommunications authority.

One of the key advantages of BTX is that a growing number of external computers are being connected, including mainframes in major banks. As a result, West Germans willing to buy the necessary equipment to call up BTX can carry out banking transactions from their living room.

The cost of this equipment is not exorbitant and is coming down, but it is still obviously much too high for most individuals. BTX is therefore considered unlikely to catch on in West German households for some time to come.

It is businesses (notably small to medium-sized ones) which are expected to be the main users of BTX for banking and other purposes in the immediate future. In this scheme of things, BTX can be seen as an important means of feeding banking data into a personal computer in a company's finance department. With auto-dialling, the PC can pull in data from various banks for further processing, along with data from other sources, external and in-house.

A number of major banks—and some innovative smaller ones—are already offering electronic cash management schemes which envisage a part being played by BTX. Dresdner bank, in particular, has been making strong efforts to promote its electronic services, including the debit package which uses BTX. Among the latest to launch a service of this type is Bayerische Vereinsbank, with its headquarters in Munich.

Debit package

The large U.S. banks active in West Germany, such as Citibank and Chase Manhattan, have also been incorporating BTX into the range of electronic services offered to local clients but, with their own established international links, they see BTX as a limited though important adjunct to their communications services.

Among bankers, critics of BTX argue that it is relatively slow and cumbersome as a transmission medium. Security has also been a hotly-debated point of controversy, especially since the youthful enthusiasts of the Chaos Computer Club in Hamburg demonstrated weaknesses in the system.

As the West German Banking Federation in Cologne points out, many banks have invested heavily in BTX and are not going to give up quickly. Banks, in general, are prepared for a long haul with BTX but, at least for corporate clients, especially for small to medium-sized businesses, they see interesting potential applications.

One company which has found a sizeable niche in this field is the Munich-based software house of Computeranwendung Fuer Management (CAM). It was among those who recognised the need to ensure the compatibility of the BTX data offered by various banks and has established strong links with major banks in pursuing this goal.

With competition between banks in West Germany very intense, it is not always easy to bring about consensus or compatibility. This is evident from the current controversy about the savings banks' plans for their own nationwide plastic card, the S-card. These plans clearly have implications for the Eurocheque (EC) card and for the way West Germany moves towards electronic Point-of-sale (POS) in shops.

Rival bankers have strong misgivings about the S-card, believing that it may undermine the EC card. The EC card has been built up as a standard—to be used as a bank guarantee of customers' cheques (up to DM 400 per cheque) and as a key to cash dispensers and account statement machines. But the savings banks argue that only half of their 20m account customers have an EC card. The other half could be deprived of new electronic financial services based on the EC card, they argue.

With the new nationwide S-card, savings bank customers will be able eventually to get access to their entire account (plus any agreed credit) from automatic machines at any savings bank in the country. They will be able to do this through a sophisticated network of computers which the savings banks have been in the process of building up.

The savings banks also want the S-card, rather than just EC cards, used in any point of sale system to be set up in West Germany. Through a link-up with the savings banks' computer network, transactions would be made on a decentralised basis from customers' accounts.

West Germany already has embarked on some modest POS experiments in Munich and West Berlin, and bankers have been considering when and how to widen the trials. But POS still has a long way to go, as there are many questions to be hammered out by bankers, traders and suppliers of equipment—including what role chip cards, with microprocessors, may play in POS.

Streamlined

The Bundespost, meanwhile, is taking steps to streamline operations at Post Office branches, including its banking services. It has given an order to Nixdorf for up to 4,000 terminals, complete with software and print-out devices, to be delivered in 1987 and 1988.

These are the first of about 20,000 terminals which the Bundespost plans to install eventually to record and process counter transactions, ranging from sale of stamps to cashing of cheques and savings account deposits and withdrawals. The terminals are envisaged initially as independent stand-alone devices but they may become part of a more elaborate Bundespost computer network at some indefinite time in the future.

At present a lot of work in Post Office branches is still in pre-electronic age rut. The latest scheme will help to streamline operations and underpin the Bundespost's competitive position as against banks which have invested huge sums in computerisation and terminalisation.

Operation catch-up under way

Advances in the U.S.

PAUL TAYLOR

THE WAVE of financial deregulation in the U.S. has forced financial institutions to rush headlong into another revolution of sorts. This is the technology revolution and it is changing the way U.S. banks and other financial intermediaries not only do business, but type of business they choose to do.

Interest rate deregulation, fundamental changes in tha operation of the financial markets and new competition from outside the traditional boundaries of the industry, have combined to encourage institutions to take a closer look at product lines, profitability and costs.

At the same time customers, both individual and corporate, are demanding ever-more sophisticated products and services together with direct access to their accounts.

In the banking sector this has produced an explosion of activity as managements have realised that the very future of their institutions may depend on the effective and efficient use of data processing and integrated data bases.

A recent report by Salomon Brothers, the Wall Street Investment Bank, entitle "Technology in Banking—A Path to Competitive Advantage" concludes, among other things, that "in an increasingly competitive environment, electronic banking is not an issue that financial institutions can afford to overlook."

Potential profit

The report also suggests that there is "a positive correlation" between the potential profitability of various lines of business and "the degree to which technology can be employed to differentiate product and service offerings."

U.S. banks have long been considered behind most of their European counterparts in introducing technology, even the basic automated teller machine (ATM), to their business. But that is changing rapidly, encouraged in part by declining equipment prices coupled with improved reliability and increased performance. For example, ATM prices have dropped dramatically recently helping spur a 45 per cent jump in the number of ATMs installed in the eight major national networks to over 33,600 in just the first eight months this year, according to Bank Network News figures.

Indeed, almost all the U.S. majors have committed themselves to a massive "catch-up" programme of investment in state-of-the-art telecommunications networks, computers and other electronic equipment. For example, Manufacturers Hanover has recently completed a $50m five-year project to install a private, integrated worldwide telecommunications network linking its branches in 57 cities.

According to the Salomon Brothers estimates, major U.S. banks, led by banking groups like Citicorp, Security Pacific and others have invested $7bn in electronic banking technology over the past five years.

Salomon Brothers also estimates that the U.S. commercial banking industry as a whole spent between $8bn and $10bn last year alone on computer processing as a result of "sizeable investments in both hardware and software."

What is more, the report also suggests that tha U.S. banks oow spend a higher proportion of their non-interest expenditures on automation than any other industry with the exception of the data-procesing industry itself.

"Systems and telecommunications have now become essential components in virtually all lines of business in commercial banking," say the authors of the report. Among the 35-bank groups examined in detail by the Wall Street firm, the report suggests automation-related expenses now account for 11-15 per cent of total non interest costs.

The banks' growing investment in data processing spans across the full range of their businesses, from corporate cash management accounts to retail banking, consumer credit services, check clearing and trading. At some banks sophisticated software is now being used increasingly to monitor risk exposure, assess the profitability of product lines and even specific transactions, and target potential customers.

Meanwhile systems designed by companies such as Dallas-based Hogan Systems and Internet will allow banks to manage virtually all their foreign exposure. The Internet system, for example, addresses 16 major activities inclnding funds transfer, loans and deposits and communications.

While the rapid growth of linked ATM-networks and electronic payment systems is perhaps the most immediately visible sign of this "back-room" revolution, its implications stretch far beyond tha traditional confines of corporate and retail banking business.

In the U.S. "home-banking" on personal computers has barely emerged from the test phase and most industry analysts agree that it will be several years before banking-at-home becomes profitable. But, spurred by the massive investments of banking groups like Chemical, which is thought to hava spent $10m to $20m developing its Pronto home banking system, most industry experts believe home banking packages will proliferate as customer acceptance increases.

At the other end of the spectrum, banks are beginning to grapple with the complex problems of building integrated data bases and in house management information systems. Indeed, perhaps the greatest danger in inherent in the bank's rush to expand electronic systems is that failure to integrate systems could reduce at the full potential cost benefits and lead to disenchantment. As tha Salomon Brothers' study notes, "the fragmented approach to electronic banking adopted by many financial institutions had produced such counterproductive results as competing networks and misdirected applications of resources, thereby stifling increases in productivity."

Such concerns are also beginning to emerge in other sectors of the U.S. financial services industry. On Wall Street, for example, the investment banks and brokerage firms have dramatically stepped up their spending on PC's, heavy-duty data processing equipment and on software and tha proliferation of electronically delivered financial information that Reuters, Dow Jones, Telerate, Quotron and others offer.

According to some industry estimates, securities and commodity firms spent almost $55m last year on software, integrated systems, data processing and data capture. The same studies suggest this spending could increase by over 20 per cent over the next five years.

Among the major Wall Street firms hardly a week goes by without an announcement of another big contract being signed. According to Wall Street Computer Review, a specialised industry magazine, E F Hutton plans to spend $30m to $50m over the next two years on mainframes, minicompnters and terminals. Prudential bache spent $37m last year on hardware and software and Merrill Lynch plans to spend about $40m alone on PC's for its account executives.

Like the banks, the big Wall Street firms are investing in computer technology both in response to increased competition and thinner margins on their basic brokerage and other businesses, and in order to enhance their product offerings and marketing skills.

The impact of this investment is already apparent in the market place and on the exchanges which are themselves investing heavily in technology in order to handle higher trading volumes, improve operating efficiency and cut costs. Such investment may also prove the key in the widening move towards expanding exchange operations through global linkages. Both inside the exchanges and outside, through companies such as Instinet, automated trading systems are emerging which can electronicaly execute trades and deliver customer confirmation virtually instantly.

It is probably too soon to fully gauge the effects of this new technological revolntion on the way Wall Street operates. But like the commercial bankers, some securities firm executives are already questioning where the changes will lead, and whether the costs are justified.

Among the findings of the receot far-reaching "Delphi" study prepared by the U.S. Securities Industry Association and Arthur Anderson, the accounting firm, the study noted that technology costs are expected to rise more than any other cost catagory as securities firms attempt to remain competitive.

However, the "Delphi" study, compiled with the assistance of senior securities industry executives, notes, "there is an uneasy feeling that these particular costs may be out of control."

Even more strikingly the study revealed that, despite the already massive investment in technology and the further increases planned, some indsutry executives remain unconvinced that technology will substantially improve their competitive edvantage.

Nevertheless, there is, throughout much of the U.S. financial services sector, a realisation that the initial costs associated with introducing data processing systems are costs that probably have to be borne—in the hope that they will eventually generate promised savings and thereby help determine the industry's bottom-line winners and losers.

Or as Salomon Brothers' report concludes, "in general, we continue to believe that tha most successful banking organisations in the future will be those capable of delivering products and services at the lowest effective cost.

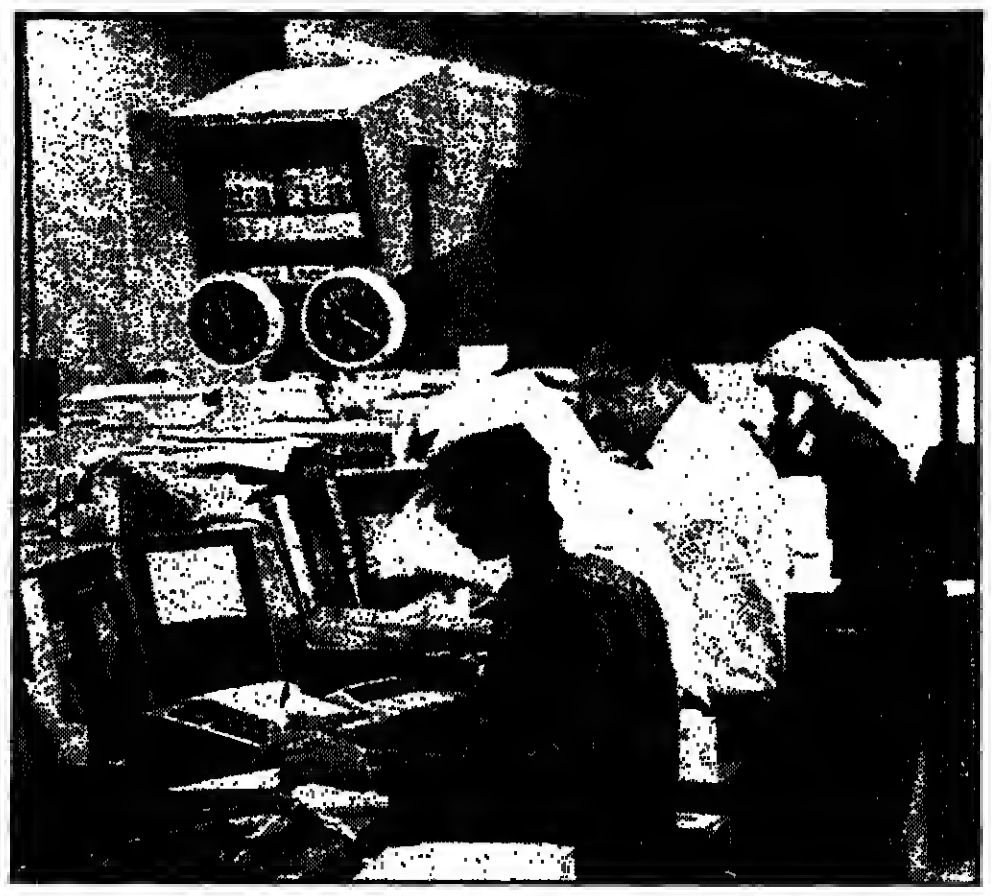
"The challenge for bankers—and others in the U.S. financial services industry—is that in order to become low-cost producers, they must address and plan the various elements of electronic banking 'in an integrated fashion to compete and thrive during the remainder of this decade."

U.S. automated teller networks

Network	No. ATMs Dec 1984	of ATMs Aug 1985	Access card base at Dec 1984 (m)	Access card base at Aug 1985 (m)
Cirrus	6,471	8,119	27.3	30.8
Plus	4,675	5,617	26.6	48.6
Express Cash	3,200	5,294	2.1	2.9
Visa	2,240	4,500	20.0	45.0
Citishare	2,400	2,900	8.5	8.5
The Exchange	1,690	2,787	3.4	6.1
Nationet	1,434	2,400	12.0	10.0
Master Teller	1,000	2,000	3.0	6.0

Source: Bank Network News. Research: Rivka Nachoma.

Brokers at Tokyo's Tanshi money house in Japan



The foreign exchange dealing room of Gulf International Bank in Manama, Bahrain

Major shift in automation strategy

Olivetti, which dominates Italy's electronics sector, specialises in banking equipment. Here its personal computer is being assembled at its Scaramagno plant

Italy

DAVID LANE

BRANCHES provide the target for the automation offensive which is underway in Italian retail banking. This is a significant shift since the 1970s, when the major effort was given to head office functions and the creation of large central data processing centres linked by real-time communications to branch networks.

"Our emphasis on branches is partly a result of a decision to decentralise which was taken six years ago, but delegation of authority and responsibility was first of all an organisational choice and out decentralisation of data processing arises from this," says Marco Martini, Banco di Roma's director of information systems.

Data processing at Italy's fourth largest bank is being structured around 11 regional computer centres, each enjoying a large degree of autonomy. Cheques are now processed at local level and other procedures which will be the job of the regional centres include loans and credit risk, foreign exchange and import-export.

In common with Banco di Roma, other Italian banks are currently reviewing or renewing their information systems. Last year Banca Nazionale del Lavoro commenced a global overhaul of its information structure, its large central computers, data transmission networks, peripheral stations and terminals. At the same time Italy's biggest credit institution initiated a radical reform of its organisational and accounting systems and methods.

Banca Commerciale Italiana has been studying the possibility of the total renewal of data processing systems in its foreign branch network. At home, the bank has been looking at teleprocessing for stock exchange operations and the real-time processing of loan risk and default procedures, as well as a project for setting up its own data transmission network using advanced technology.

During the early 1980s it was fashionable to predict a rapid decline of the mainframe and its replacement by totally distributed systems. This has not happened in Italian banking. However, Ipacri (the central organisation for automation in Italian savings banks) believes that technological scenario does point to a significant redaction in the space available for large central computers.

Key venture

For Ipacri the main problems which are now being faced, and seem likely to be posed in the future, are those associated with managing the information needs in branches. This means getting the best out of work stations and the hardware used by customers.

Indeed, a key venture currently being undertaken at Ipacri is its "branch project."

"The focal point of the innovation process is the bank branch and the changes which it must undergo in order to become an effective sales point and manager of service offered by the bank," say an Ipacri spokesman.

Ipacri describes a new concept for the bank branch in the Italian environment. Over and abova the traditional banking services, it must be able to offer customers a wide range of financial services, as well as making self-service operations available both within the branch itself and at the customer's home or place of work.

However, the savings banks are certainly not alone in pursuing the idea of selling new prodncts, introducing new procedures and installing new equipment in branches. Credito Italiano says that it has completed a technical/organisational study for restructuring branch services, the main objective being to improve assistance to customers. Banco di Roma is treading the same path.

At the end of last year the Istituto Bancario San Paolo di Torino launched its "Project 90," a model for the bank's branches in the 1990s. "Project 90" aims to give customers better and wider services, integrating new technology into a new organisational structure. It is a project in which ergonomics and layout play key roles.

With the growing emphasis on branch operations, it is not surprising to find that Italian banks are spending heavily on terminals. Three years ago the ratio of computer terminals to staff at the San Paolo di Torino was one to seven. Under "Project 90" it is planned that each terminal should be shared by just two employees.

Having completed a study of terminal requirements, Banca Commerciale Italiana has started to renew terminals in its national branch network. A significant numbeg of the existing units will be progressively replaced by intelligent terminals. Banco di Roma i. also upgrading its hardware. According to a survey of the banking market undertaken by Honeywell Information Systems Italia, the total number of terminals installed in 1984 rose by 28 per cent.

Though personal computers have entered the scene at a time when increasing attention is being focused on branches, their use has so far been mainly limited to head offices. The explosive growth of PC's, whose numbers are estimated by Honeywell to have risen by 150 per cent last year, has hit the centre rather than the peripbery of Italian banking.

Notwithstanding the huge boom in purchases of personal computers, their development potential in banks has definitely not been exhausted.

"Many nsers have not yet completed trials and it is expected that only during the course of this year and next that there will be a more generalised use of the PC, both at the centre and in branches," notes the Honeywell survey.

The computer manufacturer looked at the areas of use and applications of the personal computer in Italian banks. Most frequently they are being used for word processing, the case at 45 per cent of installations.

Honeywell found that 28 per cent of PC installations are used for spreadsheets, 25 per cent for data base, 19 per cent for staff management and 18 per cent as terminal emulators. Communications management (4 per cent), graphics (4 per cent) and foreign exchange/shares/bonds applications (8 per cent) appear to be areas of lesser importance at the moment.

Scope for growth of personal computers in Italian banks is underlined by one simple statistic. The average number of PCs in those banks where they have been installed is less than 10. While the majority of PCs are at present used in stand-alone mode, the interest for tomorrow lies in connecting PCs to mainframes, not just as termioal emulators but to integrate with, and allow the user direct access to, the bank's information system.

Prospects

Objections to the spread of computing power appear to have been overcome.

"Personal computers provide one of the main areas of development for the future," affirmed Marco Martini at Banco di Roma.

As well as serving as intelligent terminal and use at the counter, Sig Martini sees PCs becoming essential working tools of branch staff in selling new non-banking financial services to customers.

Growing awareness of economic realities lies behind the emphasis being given to new services (consumer credit, bome loans, unit trusts, portfolio management) and automation of traditional activities. Banks believe that normal banking operations are becoming less profitable, so diversification into more remunerative areas and cost-cutting through automation are now the watchwords.

Italy's first experiment in electronic funds transfer at point-of-sale (Eftpos) was launched by Enidata and the Banca Piccolo Credito Valtellinese at the skiing resort of Bormio, earlier this year, during the world championships. another trial involving the larger banks, and on a national scale, is now getting unlerway.

However, Italians are very attached to cash, whereas plastic cards have not been so widely accepted as elsewhere in Europe. But the Bancomat National cash-card, which boasts about 3m bolders, may perhaps now be getting properly airborne. A senior manager at the Monte Dei Paschi Di Siena said that the Sienese bank has experienced a doubling in the use of the card this year, compared to 1984.

According to this manager, Eftpos based on Bancomat ought to be successful and he foresees its rapid expansion through the main supermarket chains, at railway stations and along Italy's extensive autostrada network.

Moreover, he is optimistic that the national credit card system, which will start operating next year, will yield good results, but on condition that the banking system manages to agree on a single unified card for all operations.

Behind the scenes, and invisible to banks' customers, work is progressing on the National Data Transmission Network. This is due to start up in January and will initially link between 35 and 40 of the largest banks, together with the central organisations of the savings banks and popular co-operative banks.

This data transmission network employs the procedures developed by Impacri for the savings banks' ewn Stachi, network.

Italian banks also turned to Ipachi for Bancomat, the national system being based on the savings banks' category may sometimes appear old-fashioned, but in adopting new technology it has been ahead of the rest.

Italian banks, individually and collectively, have made considerable efforts in automating since the mid-1970s, and the exercise has been costly. There is widespread coyness over revealing what has been spent, but based on Banco di Roma's expenditure of about L100bn during the phase of decentralisation, a figure of between L1,500bn and L2,000bn would be a fair estimate of what has been spent overall in the past ten years.

As to the future, Marco Martini has few doubts—"Expenditure seems set to continue at the same rate. It is difficult to see any slow-down over the next ten years," he says.

Impact felt far and wide

France

DAVID MARSH

THE USE of computers in banking in France is having a fast-growing impact not just on the financial service industry but on French people's general way of life.

Introduction of home banking terminals based on the Minitel videotex screen being progressively introdoced around France by the Direction Generale des Telecommunications (DGT) is part of the general revolution in popular use of electronics advances. Together with new electronic payments systems based on the French-invented "smart cards," such technology is greatly increasing the sophistication with which French people make transactions and investments—prodding forward innovation and change in the overall financial services area.

Computers in banking, too, bave major repercussions in the overall economic sphere. Purchases of data processing equipment by the banks, now concentrated less on the large computers at central locations than on decentralised work stations and terminals, accounts for about one-fifth of the nation's total spending on information technology.

On some estimates, the banks will have installed 200,000 such terminals for branch and head office personnel by 1990, compared with 25,000 at present.

Forecasts that such rationalisation could create the need for job cuts on the level of reductions in the steel industry are almost certainly exaggerated.

Nonetheless, serious commentators such as M David Dautresme, chairman of Credit du Nord, have advanced the possibility that 15 per cent of banks' employees—a total of 60,000 jobs—could be under threat from new technology. The banks' chalenge will be to try to come up with new employment in areas like financial advisory services and marketing for staff whose routine tasks are increasingly being carried out by machines.

About 30 French banks now offer home banking services to their customers via Minitel screens. Medium sized banks such as Credit du Nord and Credit Commercial de France—which launched the first French bome banking terminals amid a blaze of publicity in December 1983—are using such devices as a marketing tool to try to increase their share of retail deposits. Foreign banks such as Chase Manhattan have also launched electronic retail banking services to attract high-income accounts.

Customers are gradually being offered services spreading beyond simple balance-checking and making of transfer payments between accounts. Sophisticated programs allow clients—on the basis of services already offered to corporate treasurers—to monitor the value of investment portfolios and switch between different instruments.

Home banking services are being introduced by many banks deliberately as a loss-leader. Computerisation programmes are resulting in heavy spending years before the anticipated pay-back in terms of staff reductions or increased market share. As an example, the overall information technology budget of the largest French bank, Banque Nationale de Paris, came to around FFr 800m last year, up by 25 per cent from 1983 for its French operations.

The heavy cost of acquisition of computer equipment as well as automatic telling machines and cash dispensers explains why the overall costs of all French commercial banks rose by 10.9 per cent last year, according to figures from the Banking Commission. Within this overall figure, staff costs rose by a lower rate of 9.2 per cent.

High-spending on the introduction of the smart card payment system around France over the next few years has also led to considerable friction with the retail trade over how the new technology will be financed.

Smart cards

The banks last month announced a firm order for 12.4m smart cards from Bull, the state computer group which is the card's main manufacturer.

Another 4m cards, for supply by 1988, will be ordered from other manufactures, led by Philips.

Total spending on the programme, including electronic terminals to be installed in shops, will amount to nearly FFr 1bn. The banks will eventually benefit considerably by reducing expensive processing of cheques—which at present costs the banking community an estimated FFr 20bn a year.

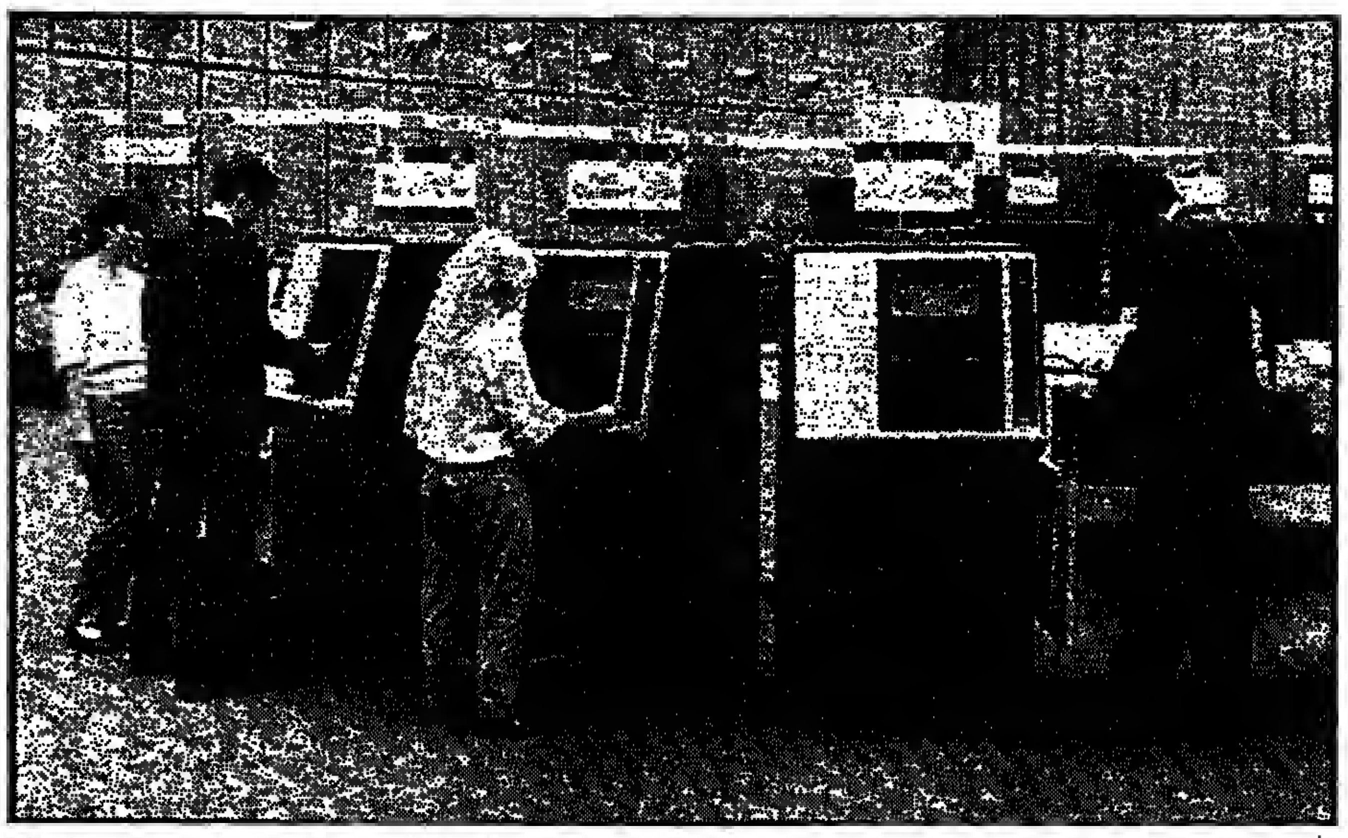
But in the meantime the banks will be asking shopkeepers to foot part of the bill for the new equipment. The retail trade, which has fought a vigorous campaign to prevent banks imposing cartel-like pricing for the smart card system, has just won an initial victory.

Commisisons on credit card payments, under a decision announced by the banks in September, can now be negotiated liberally on a case-by-case basis, allowing the larger shops and stores to split costs on a more equitable basis.

The flurry of computer ordering by the banks has made manufacturers of both hardware and software acutely aware of a more competitive environment. Especially because of the shift towards purchases of decentralised microcomputers and work stations rather than centralised mainframes, the tussle for market share among producers has hotted up considerably.

The most lasting result of the banking computer revolution is perhaps that Bull — which profited from a series of Government-directed orders placed by large banks such as Societe Generale and Banque Nationale de Paris during the 1970s and early 1980s—has in recent years had to fight much harder in the market place against IBM. That has toughened Bull—and ultimately been of benefit for the entire French computer industry.


CHASE
Institutional MicroStation



Kreissparkasse, the Cologne savings bank, has 90 statement printers and more than 100 automatic tellers from Nixdorf used by almost all private giro account holders. Another 50 ATMs with savings book modules have been ordered, worth DM 6.5m

Heavy outlay needed to keep pace

Scandinavia

KEVIN DONE

THE Scandinavian countries have established themselves among the world's most advanced technological banking nations, and the leading banks in the region are well-advanced with the installation of their second generation of computer systems.

The new round of orders in Sweden has largely been shared between the local supplier, the Ericsson group, Nixdorf of West Germany and Philips of Holland.

Mr *Morgan Abrahamsson*, Sweden has largely been executive vice-president at Svenska Handelsbanken, Sweden's second largest commercial bank, says: "Banks have traditionally been spared from huge investments in premises and machinery, but this pleasant condition is now but a memory, as all major banks are facing substantial investment decisions to keep pace with the rapid electronic development in the finance area.

"The profitability of many of these investments is dubious, and much heavy spending will be undertaken in order oot to be left behind in a collective race to undermine the largest part of ou rincome—spread and float."

There is much technical co-operation between Sweden's banks, which means thet a number of issues in bank automation which cause controversy in other countries beve been solved relatively amicably.

It is estimated that 98 per cent of the Swedish adult population have at least one bank account, and about 74 per cent receive their wages or salaries directly to their bank accounts. Bills are paid usually through the two competing giro systems —post and bank giro—and cheques are rarely sent through the post.

All cheque clearing has been electronic since the early 1970s and the physical cheque never leaves the branch office where it was cashed, regardless of with which bank the eccount is held.

All Swedish banks belong to the Bank Giro System, which handles all in-and-out payments via the bank giro on e central basis with identical conditions for domestic *payments* for all the banks.

The so-called Automatic Cash Dispenser Centre is run by the commercial and co-operative banks jointly and administers the joint ATM network. The K-Credit Card, owned by the same banks, and its subsidiary Eurocard AB, handles the financing of credit card purchases.

The K-Card will pave the way for the country to introduce electronic funds transfer later in the decade. The card has three functions; it is a cash withdrawal card for use with ATMs, it is also a debit card at the point of sale and a conventional credit card.

No large-scale experiments have been made with point of sale terminals in Sweden, however, and Svenska Handelsbanken believes it will take quite a few years before such terminals are in common use.

Other operations in Sweden owned jointly by the banks include a credit information service and the Securities Register Centre, which administers the system of simplified share registration introduced in 1971.

The investments by the banks in the development of computer technology and the introduction of new data-based services is causing a *significant increase* in their costs.

"The design and installation of a new banking terminal system is usually the largest *single investment* decision undertaken in a bank," says Mr Abrahamsson. "It affects all customers, it concerns the whole staff, it touches the bank's very heart."

According to Skandinaviska Enskilda Banken, Sweden's largest commercial bank, computer technology was previously used primarily to improve the efficiency of internal routines. "Today it is a means of competition, which strengthens tha bank'a ability to offer expanded, sophisticated services."

Automatic

The S-E Bankers group is continuing the expansion of its computer based comunications system Sebent and during last year its subsidiary banks in Singapore, New York and Frankfurt were linked to the system. In its final form the system *is designed* to *include* all subsidiary banks and representative offices.

Tha system is already being used for the group's dollar payments which go via the subsidiary bank in New York, where an automatic dollar clearing system has been developed. In most cases payments are forwarded without manual processing.

This year the bank has installed an advanced computer system — Sebis — at its banks in Frankfurt and Singapore for such functions as ledger account processing, foreign exchange and accounting.

Recognising that rapid payment flows ere important S-E Banken now offers e number of cash management services. These include a terminal service *aimed at serving the finance* departments of large- and medium-sized companies.

Through this system companies can control their payments and obtain information about their transactions with the bank, overviews of the balances in various accounts, deta on stock pricea and currency exchange rates and money and capital market conditions.

Other services are being edded including information on the economic situation in Sweden and ebroad.

Mr Abrahamsson maintains thet although communication with the customer bas been the focus of most of the interest in the development *of* banking technology and services, issues to do with in-house data processing are perhaps of greeter strategic importance.

*The first generation Handels*banken terminal system was installed in 1974 and supplied by Philips. It is showing signs of age, however, and since the late 1970s Handelsbanken has been working on the *development of a successor.*

It has chosen Nixdorf of West Germany, which is working on the installation of a £25m unique custom-built terminal network for Handelsbanken's entire Swedish operations.

The decision to *replace* the Philips system was taken in 1980, the tendering procedure began in 1981 but it was not until late in 1983 that Nixdorf was chosen.

Joint development work was *undertaken last year*, test branch installations and pilot installetions have taken place this year and installations will begin next year with completion by *1987*.

Rivals move towards compatibility

Belgium

PAUL CHEESERIGHT

GENERALE DE BANQUE, tha largest of the Belgian commercial banks, has just set up e joint venture company with Cognitive Systems of the U.S. to market new artificial intelligence techniques. One is called Broker, a natural language consultancy system for use in the purchase of Belgian shares. The other is called Telex Reader and it translates incoming telexes into codes which can be used in the inter-bank clearing system called SWIFT.

This welding of new software on to the electronic capability of a bank is natural for a Belgian institution. The Generale, until recently known as Societe Generale de *Banque*, has been working on artificial intelligence techniques for some time and has brought Broker and Telex Reader to the prototype *stage*.

But it would not have been possible without the solid grounding in electronic banking that is common in the Belgian *system* to the *extent* that the banks claim to be some of the most advanced in the world.

The Generale has in fact lagged behind Banque Bruxelles *Lambert in fully* computerising its system. But Kredietbank, the third largest commercial bank, also has its own computerised network. And the grounding for all three started in the decision over a decade ago to number eccounts in the same way to create a system of identification for e centralised and computarised clearing system.

The problem for the Belgian banks has not been in how to computerise their own operations. Each in their own way has come to terms with that, not least through large scale training programmes for banking staff.

Virtually all banks in the major chains are in touch with central computers and most operations are dona electronically. The standard techniques such as the use of cash cards in machines, not only to withdraw and deposit funds, but also to obtain information like statements of balance are in wide operation.

The problem rather has been in how to spread the use of computerised banking by making it easier for the consumer, whether corporate or individual, to gain access to the system. This problem has been symbolised by the rivalry of the two main cash card chains—Mister Cast and Bancontact.

In a country of some 10m people, et the end of last May 2.17m Mister Cash and Bancontact cards were in circulation, eccording to Belgian Banking Associates figures.

The Generale, with Credit Communal, e state savings institution, was *running Mister* Cash, while Banqne Bruxelles Lambert and Kredietbank, with Caisse General d'Epargne et de Retraite, another state institution, were running Bancontact.

The development of common technical bases nn which to handle inter-bank transactions hed never stopped the rivalry for customers in a country where tha number of inhabitants for every bank branch works out et 968 against 2,310 for the U.S.

This rivalry resulted in months and months of inconclusive discussions about making the two systems technically compatible, as the banks feered fnr loss of control and erosion of identity in the mind of consumers.

But this year, faced with the resistance of those who could make the expansion of the systems possible, the two teams agreed to make the networks compatible within 12 months. Nobody had doubted that the technical problems could be overcome if the banks wanted to put their minds to it.

Networks

This decision means another quantum leap forward fnr the Belgian system of electronic hanking. It means that tha major shops and stores, which had haulked at the cost of *installing two systems*, will now have to contend with only one. Consumers will, hy virtue of the spread of point of sales terminals, have a much readier access to the *computerised system* of banking which already exists.

For the immediate future thia development seems to he the most significant in spreading electronic hanking. There is a base for the networks to operate on. Nearly 1,400 petrol stations had point of sales terminals by the middla of this year, but the number in other forms of retailing was just 524. And these terminals will receive priority in changing tha machines so that they take either the Mister Cash or Bancontact cards. Meanwhile, the banks are studying how to bring in a common system of security.

The expansion of electronic banking in other forms is likely mainly to be concentrated in the commercial sectnr. The banks can and do provide electronic facilities in their own branches indeed Banque Bruxelles Lambert has onc fully automated branch without staff—but that still means that customers have to go to the fecility.

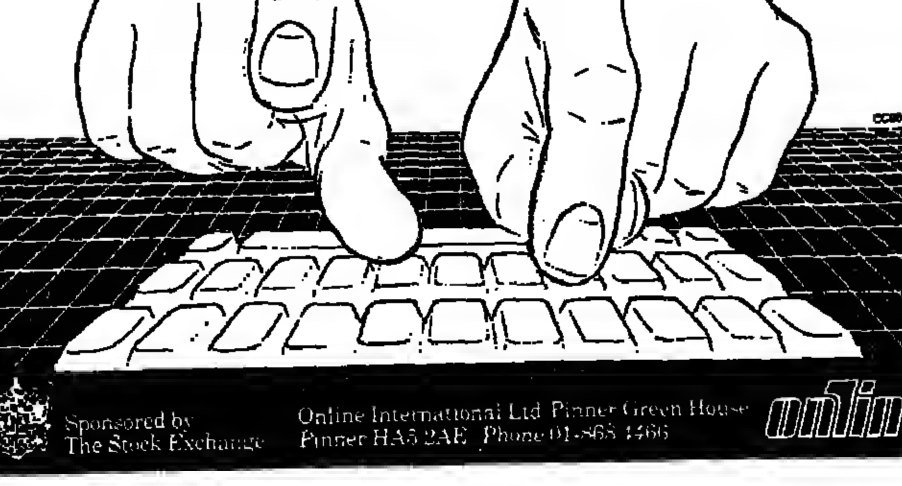
To avoid that, they will have to hire lines from the Regie des Telegraphes et des Telephones, so they can link their own electronic systems to those of the banks. *So far, this only makes* aense for husiness, although it is technically feasible in Belgium for anybody with a terminal.

The banks have facilities *in* place for any company or individuel wbn cares to use them. Banque Bruxelles Lambert's Telelink service has over 1,000 clients. At Krediatbank, Tele-KB offers not only on-line banking, bnt also the provision of information like company eccounts information and tax assessments. The Generale has its G-Line system.

In eech case tha banks are in fact making use of facilities which they already have as a aimpla development from their own internal computerisation. But there is a cost to be met.

"The costs connected with the lannching of new computer systems," says Banque Bruxelles Lambert, "have been calculated as *representing* 9 per cent of total annual operating expenditure of the bank, with the latter including both depreciation and the salaries of systems specielists."

Svenska Handelsbanken, Sweden's second-largest private b:ık has develop:l with Nixd:rf a branch computer system dealing with all teller functions as well as personal computer functions like word processing and accounts analysis



Embarrassing lag behind other centres

Netherlands

LAURA RAUN

DUTCH BANKS heve cultivated their reputation for sophisticated and reliable financial services, but their financial expertise has stopped short of electronic hanking, where they lag embarrassingly behind much of Europe.

That is largely because Dutch bankers have considered their clearing system among the most efficient and safest in the world, and have felt little need to spend hundreds of millions of guilders on new computer equipment. Yet while the *Dutch may heve avoidad some* of the problems with transaction security and customer acceptance that heve befallen banks rushing into automated *service, faster computerisation* seems inevitable to keep up with the competition.

Video display terminals (VDTs) to hasten authorisation for *simple cash withdrawals are* rare on bank tellers' counters. The retail customer atill has to weit while thick stacks of compoter printouts are perused before receiving *his* money. Only last year banks slowly began issuing personel identification cards, which are too scarce to combat freud effectively aod have yet to apeed transactions noticeably.

Automated teller *machines* (ATMs) for cash dispensing and electronic transfere are much rarer then in the UK, Switzerland and Italy. Commercial banks hava only recently agreed to allow customers to use *other banks' ATMs*, eltbough only balf of the 150 ATMs expected to be installed nationwide by the end of this year will be universally accessible.

Savings banks have moved faster into the world of push-button accounting because of their smaller size and more flexible structure. In the early 1970s, savings associations linked their various members with on-line computers, and todey boast more ATMs than commercial banks. The efficiencles achieved from automation are *likely* to heve been e factor in the higher profitability of savings banks compared with commercial banks in recent years.

Meanwhile, the Postgiro—the financial transfer system operated by the post-telephone-telagraph (PTT) — and the national savings banks launched a new *personal* identification card e waek ago. Designed to reduce fraud, the card will be tested in Tilburg and Goirle in North Brabant for a year to determine whether *national distribution* is merited. Stolen giro-pass cards cost the Post-giro-savings banks around Fl 10m a year, and bank fraud *generally is* e *growing concern.*

The electronically read magnetic stripe, plus secret personal identification number (PIN), are intended to ensure that only legitimate account holders can withdraw money. Customers are being urged to memorise their PIN code to avoid keeping e copy of it next to the *identification card, and could* face arrest if an erroneous number is given three times.

Experiment

The historical competition between the Postgiro and the commercial banks threatens to escalata with a Fl 30m, one-year test of electronic payment for petrol in Tilburg and Eindhoven in North Brabant. Dut to start in November, the experiment has been in the *planing stages* for three years and involves 84 petrol stations owned by nine oil companies as well as Philips, the Dutch electronics giant, which is supplying the ATMs.

Postgiro customers will be able to use their magnetic-stripe ID cerd to deduct petrol payments automatically from their account. Benk customers, on the other band, will use a 'smart' card embedded with a microprocessor that tells the controlling computer to pay the oil compeoy. Smart cards bave no on-line coonection with the computer but rely on the microproce:s:r's memory.

Credit cards, *even from* oil companies, are much less common than in the UK, for example, and the banks would like to keep it that way. The petrol *experiment* and other point-of-purchase payment cards are viewed as methods of ensuring thet banks retain a central role in clearing transactions.

The more successful card, magnetic-stripe or smart card, could *significantly shape* the future of the fledgling electronic banking industry in Holland. The commerciel banks are keen to see which type appeals more to *customers because* of the sizeable investments involved in ATMs. Reletively little is known about people's acceptance of transaction cards because *they are so scarce.*

The magnetic-stripe card requires an on-line ATM, which costs around Fl 10,000—or two to three times as much as the ATM activated by a smart card. The smart card is considered safer from fraud but at a cost of Fl 25 per piece is much deerer than the magnetic-stripe counterpart.

Nederlandsche Middenstands-*bank (NMB)*, Holland's third-largest bank, is the driving force behind the commercial banks' participation in the petrol experiment, and perheps the most eager to computerise generally. Mr A. A. Soetekouw, a member of the managing board of NMB, argues that the smart card technically is more versatile and still is cheaper, considering the lower cost — Fl 3,000 to Fl 5,000 — of the ATM, plus the simpler security measures required.

Algemene Bank Nederland (ABN) and Amsterdam-Rotterdam Bank (AMRO), the first and second largest banks, already beve begun with magnetic code ID cards for their ATMS. Yet, while a *furious technoingy battle probably* would break out in other countries, such as the U.S., no such conflict is likely to divide the rather cosy club of bankers along Amsterdam's Herengracht. As Mr W. E. *Scherpenhuysen Rom*, chairman of NMB and bead of the Dutch Banking Association, has said: "This is not cut-throat competition."

Dutch banks have dragged their feet in computerisation for several reasons. One is that they fear tn impose on customers' the fees necessary to finance the heavy investment required for sophisticated hardware and software. As much as Fl 700m might be needed to install all the computer equipment *Dutch banks* probebly need, according to one executive. Retail customers pay nothing for a current eccount and actually receive a nominal interest rate on their balance.

It has been estimated that each current account costs Dutch hanks Fl 100 a year or a total of Fl 500m, which is largely subsidised by fees to corporate clients. But Dutch bankera *clearly want* to evoid an all-out fee war like that hitting American banks in recent years.

Complicating

Moreover, Dutch bankers argue that their parallel commercial and Postgiro systems work better than the peper-laden chequing systems of the U.S. and UK. But not everyone is *convinced*. Mr *H. Onno* Ruding, the finance minister, and Mr Wim Duisenberg, the Central Bank president, have both warned that if the two parallel systems *are not merged* soon, Holland will fall behind international banking competitors.

Proposals to merge the two systems into a nationel payment circuit have languished for a decade although hope emerged several weeks ago that a breakthrough was in sight. The belief is that the marriage must begin this year in order fully to integrate the circuit before 1995.

Complicating the integration efforts is the planned spin-off from tha PTT of the Postgiro and the National Savings Bank and the merger of the two financial institutions. After a decade of protracted discussions, the *new Postbank is* scheduled to open for business at the begining of 1986, but that seems increasingly unlikely.

Still another reason that Dutch banks have shunned faster automation is the desire to *preserve peaceful relatione* with lebour unions. Few jobs have been lost to computera and plans for electronic systems are devised in close consultation with the workers' councils. Bank employees whose jobs have disappeared have generally been retrained end transferred to other departments. The boldest move has been Amro's announcement that it *would slash* 1,000 jobs over two years in a cost-cutting drive that involves automation.

While complacency has often prevailed in banking circles, however, qualms increasingly are expressed over escalating competition. From aggressive U.S. banks touting high-technology services to corporate clients. Global cash-management systems and real-time information services are among the costly products developed by buge banks such as Citibank, Chase *Manhattan* and Bank of America.

The relatively smaller Dutch banks lack the financial resources to develop such sophisticated products although less ambitious projects are underway. The leading bank, ABN, will begin next year with a Fl 100m "open bank" project to refurbish its 700-bank domestic network in a living-room-like decor with computer terminals scattered about. Rabobank, the large co-operative bank, is to finish a decade-long Fl 490m automation project in 1988 that involves on-line computers end display terminals for better client service.

Amro has gradually computerised internal-accounting with the help of an in-bouse management team thet travelled widely to study other banks' systems, thereby boping to avoid many first-generation pitfalls.

Bankers may grudgingly admit tbat computers are the way of the future, but other projects, such es expansion in the increasingly important London market, are competing for funds. One solution mentioned by e prominent banker is *further coosolidation in the* Dutch banking industry. Mr Andre Batenburg, the former chairman of ABN, hinted at the tima of his retirement earlier this year that more mergers may be necessary to achieve the economies of scale required for survival.

Computers in Banking and Finance 7

Robots become a vital part of marketing

Advances in retail banking

ALAN CANE

AUTOMATED teller machines, bome banking terminals and customer terminals for personal payments (electronic funds transfer et the point of sale) are more than mere delivery mechanisms. Increasingly, they are becoming the most commonly used interface between customers and their bank.

Indeed, in a world where a customer draws cash for daily needs from an ATM in a store or railway station; checks accounts from bome using a personal computer connected via telephone line to a bank (perhaps getting expert advice in the same way); and pays for most goods using a plastic card; there may be little reason for a customer ever to visit a branch.

Bank branches will not disappear, although in the UK they are on the decline. Neither will cash. Some 88 per cent of financial transactions are still mede in cash in the UK.

But remote banking, using a robot cashier rather than a bank branch, is growing rapldiy. Suppliers believe thet eutometed teller machines will be availeble to customers et railway stetions, airports, commercial offices and factory sites within five years, and at most shopping areas within 10 years.

Benks and building societies see things a little differently. Anxious to maintain the buman link with customers, they will increasingly be installing in-lobby machines. Some simple cash dispensers may be placed in an outer lobby with 24-hour access using ATM cards.

Others inside the banks will provide a range of services, including account information, peyments capability and investment edvice.

So the robot cashier is becoming part of the marketing of the banks services, and commercial advantage will be gained by the use of an efficient, easy-to-use machine.

The ATM bas progressed in a few years from a simple cash dispenser to a powerful interactive terminal.

The latest family of machines from NCR, for example, use interactive video, linking a videodisc player with a compnter system. Seqnences recorded on the videodisc, such as bow to make an investment or use the advanced functions of the machine, can be selected by the computer acting on instructions from the user.

The machine operates on-line and in real time with the bank's main computers, allowing, for example, interest calculations to be made in response to figures put in by the customer.

Mr David Anderson, of Philips Business Systems, which markets Dlebold ATMs in the UK, says the key features of an effective ATM are reliability and ease-of-use.

Television

"We have not been very good et educating our customers in the use of the machines when we post them their cards," be says. "U.S. banks often insist their customers come to the branch for their cards, wbere a member of staff shows bow to use them."

Banks beve taken to installing more than one ATM in any one site to minimise the chances of customer frustration because of a failed machine. In the UK, the National Consumer Council has called for safeguards for customers wbo lost money through errors involving cash dispensers.

The most disturbing examples involved people who claimed their cards had been used without their knowledge or permission, throwing suspicion on family and friends. One answer is a camera in the ATM to record every transaction.

It is a problem which could become more acute with the spread of home banking. At present, home banking using viewdata technology, which displays information from e computer database on a domestic television screen using the telephone line for data transmission, is fairly widespread in West Germany and France.

The TSB has installed NCR automatic tellers in the Fraser Financial Services department at Rackhams store in Birmingham

It has, however, been comparatively slow to take off in the U.S. and UK. A survey by a team of North American consultants under Mr Ken Thacker says: "Home banking is e gamble. There is considerable uncertainty whether it will evolve into e viable, economically sound alternetive to the more expensive, conventional branch banking systems."

But it warns: "A significant proportion—15 per cent—of every bank's depositor base is vulnerable to attack by any bank offering e bome banking product. And since these are prime customers with large balances that they tend to consolidate, decision makers failing to inclnde this vital statistic in their business case, dp so at their peril."

In the U.S. tbe leader has been Chemical Bank with e servi:e called Pronto with about 21,000 customers. Citibank, Chase Manhattan and Manufacturers Hanover have introduced competing services.

According to The Banker magazine, the number of subscribers in the U.S. for terminal-based electronic banking services is estimated at 50,000, linked to some 50 banks. Two years ago, Bank of America predicted there would be 25,000 customers for its HomeBanking service. To date it has 17,500, but now Pronto and HomeBanking have joined forces with AT&T and Time to market electronic financial services.

In the UK the pace remains slow. The Nottingham Building Society/Bank of Scotland service, Homelink, has yet to reveal the fruits of its initiative. Midland which has conclnded e trial based on viewdata screens in its branches is launching one this autumn.

Priorities

The Bank of Scotland has announced its own home banking system independently of Homelink. While all the big banks are interested in home banking, it is not thought to feature high on their priorities.

Personal payments systems (electronic funds transfer at the point of sale) does, however. The London and Scottish clearing banks are committed to going ahead with EFTPOS and the first three trials should go live around the turn of the year.

The race for the first netionwide EFTPOS system is still open, although the Belgian banks would claim to be clear leeders, with two major cash card chains, Mister Cash and Bancontact, mutually incompatible.

The problem was bow to make the system easy for the customer and the retailer. Earlier this year, the two chains agreed to make their networks compatible within 12 months.

In the drive to automate, it has been easy for the banks and suppliers to pay less than full attention to the ergonomics of what are very new systems. But the psychology of dealing with the robot cashier is critical fo the spread of electronic banking and it is in this area thet the next revolution should begin.

Suspicion over EFTPOS

Retailers' viewpoints

DAVID CHURCHILL

BRITAIN'S RETAILERS are still keen to see a national scheme for electronic funds transfer at point-of-sale (EFTPOS) operating in the UK before the end of the decade—but they remain a little suspicious about the attitude of the clearing banks towards working together with the retail trades in achieving successful implementation.

Mr Tom McNally, director-general of the Retail Consortium, warned recently that if the banks and retail sectors could not work together on this issue, then the Government might have to step in.

"It really would be shaming to both the banking and retailing industries if two great sectors which have prided themselves on their robust independence from government find themselves being "nannied" into e national system because of a feilure to agree," suggested Mr McNally.

"My talks with ministers convince me that they ere not willing to see a national EFTPOS system fail by default because of failure of bankers and retailers to agree."

Retailers' concern over the attitude of the banks stems from the late '70s when tbe banks first suggested the idea of an electronic funds transfer system at the point of sale. In April 1977 the Committee of the London Clearing Banks approached the Retail Consortium for discussions on EFTPOS and a Terminals Working Group of retailers, mostly et manager level with experience in retail technology was formed.

The first meeting started disastrously. The banks informed retailers bow the new system would be designed and bow it would work. There was no suggestion of collaboration or participation, with the banks merely seeing the meeting as a useful method of keeping retailers informed of developments. The reaction of retailers present at the meeting was one of incredulity and outrage.

"The meeting nearly broke up there and then," recalls Mr Michael Wilsey of the Consortium. It took some time for relations between banks and retailers to get onto a more harmonious basis.

Negotiations between the banks and retailers, however, did not fare mucb better in the early 1980s. In an ettempt to keep the talks going along the right lines, the Consortium formed an EFTPOS Policy Committee in April 1984 comprising some 30 members, all of whom were main board directors or equivalent. The council of the consortium gave the committee unprecedented powers to negotiate on its behalf.

The most important decision taken by the committee et its first meeting was to agree that EFTPOS was inevitable and that the banks were the only organisation likely to bring about a netionel scheme. Sufficient progress was made with the banks during 1984 for a joint Press conference to be called at the beginning of this year to declare eacb side's commitment to e national scheme.

Yet reteilers became concerned at the slow progress of discussions on technical standards end operating procedures—delays not helpful by the abolition of the banks' EFTPOS project teem and its replacement by an EFTPOS development team under Mr Dougal McCallum.

With a complete change of personnel there has been en inevitable delay wbile the new chief executive and ble staff have familiarised themselves with the project teem's work, much of which bas been reassessed.

Negotiating

Retailers were also concerned at the decision by the banks in June of this yeer to launcb three limited EFTPOS experiments without prior consultation with the consortium. After the consortium voiced the concern of retailers, fresh talks have started again in recent weeks to see if more rapid progress to a national scheme can be made.

What is the negotiating position of retailers? Initially, they are seeking recognition by the banks that EFTPOS is not simply e banking service provided at the point of sale.

"The retailer is pntting much more of his prestige and credibility on the line es the point of customer contact for the service," points out Mr McNally. "Charges for the system must be struck, recognising the investment of all the parties and giving all perticipants e fair share in the benefits and hence an indocement to accept and make the system work."

Retailers are also concerned that the system should be easy for the customer to use and

Tom McNally, director-general, Retail Consortium

understand, to evold customer embarrassment at the point of payment by providing meens of controlling expenditure so that unwitting moves into overdraft can be avoided.

Mr McNally also believes that the system should be available to all retailers who wish to participate but that individuel retailers should bave the rigbt to decide whether or not to accept any particular card.

"The system also needs to be simple and easy for retail staff and customers to understand," adds Mr McNally. "EFTPOS must reduce the time taken by customers at the point of payment."

In particular, retailers want to ensure that the response time of the system does not worsen during busy periods—such as Saturdeys or sale times—and that it is reliable.

"Simplicity and cost effectiveness dictate that only one device be installed at each point of payment and that the procedure is the same for ell cards eccepted by the system," be adds.

Retailers are also anxious to ensure that while the best system that can be devised is instelled, provision must be mede to edopt better practices as they emerge.

"Technology is developing quickly, new equipment and services are coming on the market and there are triels of elternative systems taking place in other countries," points out Mr McNally.

Now thet the banks and retailers are back talking together in detail ebout a national system, optimism is rising thet the somewhat strained relationships of the past will be forgotten in an attempt to bring in an effective EFTPOS system throughout the UK.

European time-sharers move on to the second generation

Cash management

SIOBHAN HANEY

CASH MANAGEMENT began in the U.S. in 1948, just after the second world war. It was invented by a customer rather than by a bank—the Radio Corporation of America—which forced its two banks to open the company's mail, remove any cheques and deposit them in the relevant accounts. Since then, cash management services have been an extension of this simple concept.

Electronic eash management systems evolved in the U.S. largely as the result of a bighly fragmented banking structure. Although the technology was available in Europe to provide similar systems, there was not the demand for them from corporate customers who were generally satisfied with the services already provided by the countries' unified banking system.

Nonetheless, in the late 1970s, when the major U.S. banks began to bring their electronic treasury products across the Atlantic, European treasurers soon realised what they had been missing. Many of the banks offered the use of their own worldwide telecommunications networks, which meant a much faster, more secure and more efficient service.

But perhaps, more importantly, the U.S. banks brought with them the concept of the treasurers' workstation. Many treasurers bad already realised the benefits of baving a personal computer and it was therefore an obvious progression for the banks to develop software to run on these computers to provide a solution to a number of the treasurers' problems.

Bank of America, Chase Manhattan, Citibank and Manufacturers Hanover are amongst the many U.S. banks offering electronic banking services in Europe today.

BankAmerica's workstation was launched in Europe in February. Called MicroStar International, the system consists of a set of specialised treasury management programmes which deal with balance reporting, forecasting and modelling and comprehensive cash management.

However, as some banks found to their cost, launching these products on to the European market was not simply a matter of transporting the U.S. versions. Mr Chris Winter, vice-president at BankAmeriee, explains: "Some U.S. banks tended to under-estimate the changes needed to slot U.S. products into a European market place. For example, you need a whole new programme to cope with multi-currencies."

Mr Michael Gallagber, vice-president at Chase Manhattan, agrees: "Treasury management in Europe is a whole new ball game; apart from the problem of multi-currencies, each country has a different interest rate structrue and a different elearing system. All these things must be taken into account when developing a work-station for Europe."

Major treasury management systems

BANKS	SYSTEM	HARDWARE	NETWORK
BankAmerica	MicroStar	IBM and others	B of A's own network
Barclays Bank	BarCaM	Wide range of terminals	PSS/GEISCO
Chase Manhattan	Global Microstation (Infocash)	Any terminal	Chase Data Network and IDC
Chemical Bank	Chemlink	Any terminal	GEISCO
Citibank	Citibanking	IBM	Infopool
First Chicago	International First Cash	Any telex or terminal	GEISCO
Lloyds Bank	Cashcall	Wide range of interactive terminals and PCs	ADP
Manufacturers Hanover	Transend	IBM 3081	Geonet (MHT's own network) and Telenet
Midland Bank	CMS	Wide range of interactive terminals and PCs	ADP
Morgan Guaranty	MARS and MORCOM	GEISCO and IBM	GEISCO, Global data network, Tymnet and Uninet
National Westminster	NETWORK	GEISCO	GEISCO
Royal Bank of Canada	Royal Command	Any standard timeshare terminal or PC	GEISCO
NON-BANKS			
Automatic Data Processing	Cash Express	DEC 10 and DEC 2020	ADP
Interative Data Corpn.*	IDC	Amdah 1/IBM	IDC linked by COMTEN
National Data Corporation	NDC	Honeywell, Tandem, IBM	GEISCO

* Wholly-owned subsidiary of Chase Manhattan Bank.

Michael Gallagher headed a team from Chase, which came over to Europe three years ago, to conduct detailed research into the exact requirements of the European treasurer. They decided that the U.S. products, even with modifications, would not fulfil the needs of the European market and so, on the team's recommendations, Chase developed a completely new set of electronic banking products on Europe, specifically for the European market.

The Global Microstation was launched in Europe in June 1984. Running on a personal computer, it offers the treasurer a range of capabilities inclnding an automatic link to Chase's Infocasb computerised electronic banking service.

Chase also has a computer bureau subsidiary, IDC, whose network is the basis of its Infocash service. New modules are expected for the Microstation in the next few months, including an investment and debt manager, a multi-currency netting system and a reconciliation module. Chase has been very successful with the Global Microstation, selling to many corporations as well as to other banks, through IDC.

When the U.S. banks brought electronic treasury management to Europe in the late 1970s, the indigenous banks were somewhat forced into finding competitive systems so as not to lose out to potential corporate customers.

Time-sbaring on one of the commercial worldwide networks, such as Geisco and ADP, provided a quick and relatively cheap way of entering the electronic banking market; all the major UK clearing banks operate their cash management services on these networks.

Conventionally, banks using a bureau to provide cash management services on a time sharing basis provide information to the bureau which then formats it using its own software and distributes it over its own network.

There are, however, two disadvantages; the customer has to make do with formats devised by the burean and costs can rise sharply with use. Recently though, two new products have been launched on to the market which go a long way towards solving these problems; FORTE (financially orientated reporting and transaction environment), which is manufactured by Advantage Systems in the U.S. and marketed and distributed by the CAP Group, and NETS, which is manufactured and marketed by the Netional Data Corporation (NDC), also in the U.S.

Both these systems provide customers with an "electronic window" into the bank files, enabling them to see their data in a format of their own choice.

Earlier this month, there was a major breakthrough in the UK electronic banking market when the National Westminster Bank announced that it was to license [illegible] from [illegible]—the first bank in the whole [illegible] move to a second generation system, and away from the time sharing environment.

NatWest will spend around £1m to install a Tandem fail-safe computer (on which to run the system) end to license the software. The system will be installed over the next year.

NETS interfaces with NDC's worldwide cash management exchange and the bank's own database. The system will allow NatWest to provide its customers with such services as account information, funds transfer and foreign exchange. NETS was launched in the U.S. in 1983 and is already installed at four major banks where it supports more than 1,800 "live" customers.

Many European banks are now looking to move away from time sharing networks which they are finding both expensive and inflexible, although time sharing did initially provide a cheap route for entering the electronic cash management market a few years ago.

Banks now require a new system such as NETS, which they can tailor to their own needs, over which they have total control and, perhaps, most importantly, which enables them to offer a competitive price structure to their customers.

Certainly, it seems that if the European banks want to compete successfully with their U.S. cousins, they should seriously consider moving away from the commercial networks and examine the new generation of treasury management software. NatWest has set the trend with NETS and it probably will not be long before other European banks follow suit.

SWIFT'S WORLDWIDE LINKS

● Key figures for the Society for Worldwide Interbank Fnancial Transactions (SWIFT) for 1984:

Country	No. of member banks	Number of banks connected to SWIFT	Processed financial transactions
Andorra	2	3	28,549
Argentina	33	38	266,758
Australia	9	11	1,844,517
Austria	41	46	4,945,144
Belgium	28	46	7,250,479
Bermnda	3	3	117,065
Brazil	25	25	247,391
Canada	8	22	2,392,344
Channel Islands	—	1	—
Chile	13	16	186,334
China (People's Repnblic of)	1	—	—
Colombia	16	—	—
Cyprus	4	—	—
Czechoslovakia	1	1	211,593
Denmark	35	37	2,670,141
Ecuador	11	14	100,738
Finland	9	11	1,935,367
France	74	89	8,787,783
Germany	118	154	14,441,036
Greece	5	14	488,168
Hong Kong	18	64	2,008,922
Hungary	4	3	131,811
Iran	1	—	—
Ireland	2	9	484,889
Israel	12	14	704,528
Italy	150	146	9,649,456
Japan	65	100	3,412,646
Jordan	1	—	—
Liechtenslein	3	3	110,108
Luxembourg	9	26	1,845,169
Mexico	14	13	362,450
Monaco	1	2	19,686
Morocco	7	—	—
Netherlands	22	34	6,627,598
New Zealand	2	4	492,321
Norway	25	24	2,721,813
Peru	8	—	—
Philippines	10	13	78,078
Portugal	11	13	529,395
Singapore	9	65	1,480,248
South Africa	12	18	1,160,099
Spain	35	47	1,682,680
Sweden	15	17	3,350,559
Switzerland	63	79	11,167,168
Taiwan	12	—	—
Thailand	11	—	—
Tunisia	4	—	—
UK	38	136	12,987,308
Uruguay	11	21	166,351
U.S.	157	273	22,251,756
Venezuela	20	—	—
Total	1,188	1,656	129,953,693

Conversion will increase system capacity

The role of SWIFT

SIOBHAN HANEY

IN THE 1960s, communication circuits grew rapidly with major banks struggling to gain a competitive edge. Within a short time, the Atiantic and the European and American continents were criss-crossed by a maze of competing communication networks.

In an attempt to overcome these problems, a group of bankers was called together to work on a message switching project. Out of this broad plan they drew up for the development of interbank communication grew the Society for Worldwide Interbank Financial Telecommunication (SWIFT) as it exists today.

SWIFT was established in 1973 by 239 banks in 15 countries as a non-profit bank-owned cooperative society. It is dedicated to meeting a number of specialised service needs relating to interbank financial transactions.

Shareholders now amount to 1,257 banks in 54 countries, and the society processes over half a million transactions per day. SWIFT is based in LaHulpe, Belgium.

Services centre principally around specialised international transaction processing. The term "transaction" encompasses most international financial functions such as customer transfers, foreign exchange confirmations, bank transfers, documentary credits and so on.

Standards encompass a number of different areas, the most important being the SWIFT message-text standards. These enable banks throughout the world to communicate via a common language. Because this language is computer readable, member banks can automate both the bandling of transactions and their account reconciliation.

The original SWIFT system (still in service), called SWIFT I, is based on centralised network architecture and uses a "store and forward" approach. However, as the SWIFT I system nears the end of its service life and the limit of its volume capacity the new system, SWIFT II will progressively take over.

SWIFT II is based on a decentralised network architecture and will use a "transaction processing" approach, enabling member and user banks to incorporate a variety of processing application functions for national or regional services, provide greater flexibility in banks' processing operations and substantially increase overall system capacity throughout a "modular expansion" approach.

Cutover date for banks in Europe and America is June 2, next year to be followed in 1987 by banks in the Far East and in 1988 by banks in Australasia and Latin America. During the conversion period from SWIFT I to SWIFT II, all SWIFT services will be available to users equipped with SWIFT II terminals.

A compatibility period will be provided so that users can prepare themselves and test the new terminals, and for that period SWIFT I equipment will be able to connect to the SWIFT II system.

SWIFT I and SWIFT II services will co-exist during the changeover, although some operational limitations will be imposed on the SWIFT 1 terminals.

To complement the switch from SWIFT 1 to SWIFT II, SWIFT has launched a range of user terminals—the ST400 series (the existing ST200 and ST500 will be provided with a SWIFT II interface).

ST400 will act as a SWIFT II interface for medium to large volume banks which require not only message transmission facilities, but also processing power for banking application packages.

The terminals will be capable of transmitting and receiving thousands of messages on the SWIFT network as well as other networks, such as the major clearing systems, CHIPS, CHAPS and Fedwire.

Over the past few years, two important policy issues concerning SWIFT have emerged; namely, should non-bank financial institutions be allowed to join SWIFT and should direct interfaces be allowed between SWIFT and third party networks such as GEISCO and ADP.

At SWIFT's annual conference last September, neither of these issues was discussed in any detail, and it seems increasingly unlikely that non-banks will ever be allowed to join. The general consensus at SWIFT seems to be that its member banks should use the network as a competitive tool against institutions which are moving into traditional banking areas with market deregulation.

On the second issue, SWIFT views other networks (including those operated by its member banks) as rivals, and is therefore unlikely to assist them in any way, by offering a direct interface.

Indeed, these alternative networks have gradually eroded SWIFT's position as the bank's primary telecommunications network; more and more, the large international banks are using their own networks to communicate with their branches, by sending messages in SWIFT format but by-passing the SWIFT network.

It seems therefore, that SWIFT's role is slowly changing and that in the future, the network will carry messages on behalf of the medium-sized and smaller banks rather than for the giants which will increasingly rely upon their own networks, in which they have invested vast sums of money.

Furthermore, to make up for the loss of the big banks' traffic, it is expected that SWIFT will begin to actively market its other terminal-based services such as cash management.

SWIFT: traffic volumes

● Average daily traffic volumes

1978	121,000
1979	164,000
1980	218,000
1981	285,000
1982	346,000
1983	480,000
1984	566,000
1985 (estimate)	650,000

● Cumulative traffic volumes (m)

1978	24.7
1979	59.3
1980	106.5
1981	169.1
1982	248.6
1983	400.1
1984	529.9
1985 (estimate)	680.0

● Revenues (in BFrs bn)

1979	1,031
1980	1,076
1981	1,753
1982	2,512
1983	2,823
1984	3,906

SWIFT: message flow

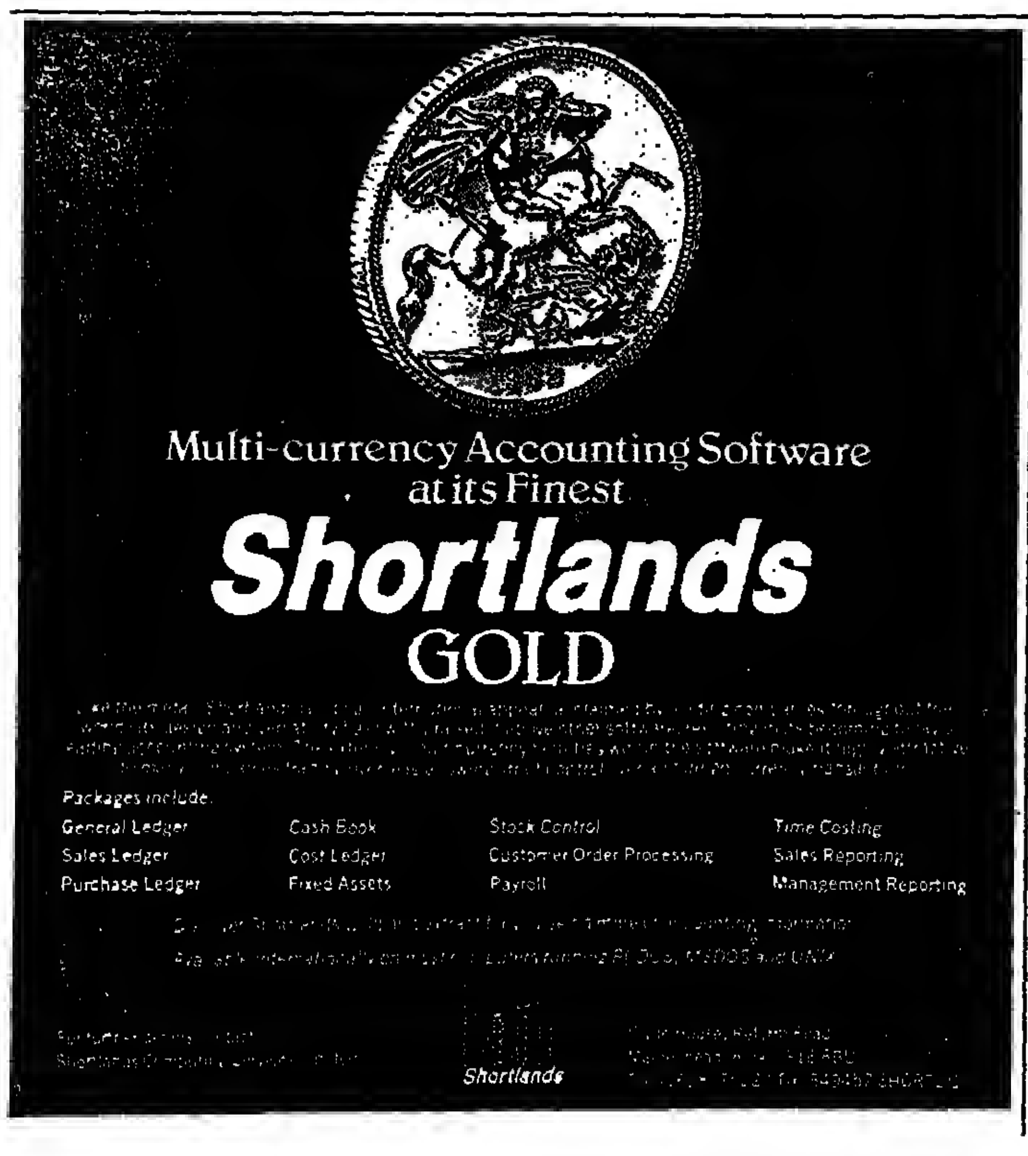
Figures to mid-year, 1985

Area	Outgoing messages	Ingoing messages
Europe	92,266,000	87,204,000
North America	24,426,000	25,505,000
South America	1,418,000	1,487,000
Asia/Pacific	9,201,000	8,877,000

The growth of SWIFT

Membership figures

Year	Member-banks	Member countries	"Live" countries
1977	519	21	15
1978	586	24	16
1979	683	29	17
1980	768	35	21
1981	900	39	26
1982	1,017	44	32
1983	1,063	53	37
1984	1,188	54	40
1985 (mid-year)	1,257	54	40



Electronic link from office to bank

Banking systems

ALAN CANE

THERE was no real alternative when the banks were installing their first generation back office accounting systems. There were no off-the-shelf banking systems and they had to assemble their own teams of compnter specialists to write the programs they felt reflected the unique nature of their own operations.

Now all that has changed. There are a large number of programs packages available and the rate of change in the finance business has concentrated minds wonderfully.

"We are being perhaps more pragmatic than we have in the past," says Mr G. M. Wood, deputy head of corporate cash management at Barclays Bank, which used to take pride in carrying out all its own development work: "We learned that some of the things we do are not as unique as we had thought."

Electronie corporate cash management, providing the corporate bank customer with an electronic link between his office and his bank, represents one of tha best examples of the build-or-buy debate.

Barclays, for example, after experimenting with a bespoke systems decided some years ago to take a package — Banklink — from Chemical Bank.

The package extracts information from the bank's files and sends it to a third party, Geisco, the information services arm of General Electric of the U.S. This operates a world-wide data communications network, Mark III, which the customer can dial-up for details of accounts, balances and so on.

The preferred terminal for such a service these days is the IBM PC and machines which operate in exactly the same way as the PC ("clones").

Barclays offers an edvanced "spreadsbeet" package on its workstation, the integrated program Symphony from Lotus Development Corporation.

Currency exchange dispenser in Zurich, Switzerland, claimed to be the first of its kind

Symphony combines a spreadsheet, database handler, word processor, graphics tool and communications all in one package. It is an extremely powerful package but not the easiest to use.

Barclays took the package from Lotus but then built on top of it "macros," special computer programs which allow the computer to carry out a series of complex instructions at the touch of a single key.

"The macros," Mr Wood says "give our workstation and Symphony e flavour which is uniquely Barclays. Without that it is hard to differentiate one bank's product from another."

Lack of uniqueness, of special flavour, is the key point which makes banks and other financial institutions jib et the thought of using packages. They ere generic pieces of software whose cost can be spread over many customers as long as all those customers are ready to take the same product and mould their operations to suit its idiosyncracies rather than the other way about.

Worldwide

The best example is probably Midas from BIS, a comparatively simple foreign exchange package when it started life but which now provides the dealer with real-time access to external databases and in-house information systems for position keeping, limit information, modeling and so on.

Chase Manhattan took a licence for Midas in its early days and installed it worldwide. Chase Midas is now quite different from the BIS product.

Once there was really only Midas, Arbat and Kapiti to choose from. Now systems from Nixdorf, Hogan Systems, Anacomp, CAP Financial Allemand and Informatik Forum to mention only a few are available for the world's bankers to choose between.

But speed into the market place has become as important as differentiation these days which is why City of London stockbrokers are looking increasingly at packages rather than bespoke systems as the date of the "Big Bang" in London's financial services market draws closer.

Chas Manhattan Bank, as it showed in its Midas development, has long had a pragmatic approach to systems building. Mark Fleischer, vice president in its electronic banking unit says it is essentially building its new system but loking out for ways of using packages where-ever possible.

It offers Lotus 1-2-3, the best selling Lotus integrated package on its treasurer's "Global Microstation" with an integral report writer; it has incorporated that report writer into the general capabilities of its workstation: "You can never do 100 per cent of what bank customers want," Mr Fleischer says. "So we say that this is what we will do and they can do the rest."

The CAP group, a computing services company based in London is well qualified to talk about the bank's attitude towards "build or buy."

It made its reputation in the early days with a series of contracts which resulted in the large mainframe accounting systems installed by the major banks.

Bespoke

Mr Alan Benjamin, CAP's director of communications says that the banks are building their own general systems—there is, for example, a new cycle of branch accounting automation and the banks are building those systems themselves.

An example is the £40m branch network Barclays is presently installing. Work will be contracted to IBM, to British Telecom and to Northern Telecom but essentially the work will be a bespoke job.

On the other hand, a bank installing a foreign exchange dealing room is likely to buy it off the shelf from a specialist.

One good example of the way packages are being made to work together is the automated teller machine networks being set up by banks and building societies.

Networking software from the U.S. companies ACI, SDM, QualStar is all being used but all the ATMs in the various consortia are expected to be able to communicate with their respective card issuers.

To all intents and purposes, it seems that "build or buy" is no longer a debate; pragmatism is the watchword and the need to get into the market quickly the driving force.

WHERE WOULD WALL STREET BE WITHOUT TANDEM COMPUTERS?

Well, it would still be in New York.

But, we venture to suggest it might not be quite the financial power it is today.

Hard to believe? Perhaps.

But the fact remains that a significant part of one of the world's most complex international business communities runs on Tandem computer systems.

Can one computer company make that much difference?

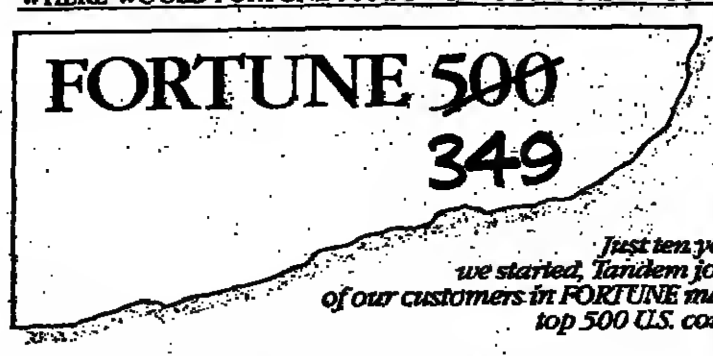
Aren't all large computer systems basically the same anyway?

Well, at Tandem, there is a difference.

A unique on-line system which works like no other computer.

A system which has taken Tandem from scratch to $530 million annual turnover—and put us into FORTUNE magazine's top 500 U.S. companies.

WHERE WOULD FORTUNE 500 BE WITHOUT TANDEM COMPUTERS?



Just ten years after we started, Tandem joined 150 of our customers in FORTUNE magazine's top 500 U.S. companies.

A system we believe will be just as revolutionary for large U.K. organisations as it has been for our clients throughout the rest of the world.

Because it'll actually work with whatever computer system you're currently using to run your business.

And make it better.

WHAT'S WRONG WITH THE SYSTEM I'VE ALREADY GOT?

Virtually every large company in the world uses a conventional mainframe computer system to run its business.

The mainframe is norm, and has been since the basic technology was established some thirty years ago.

It's part of the furniture—and that's part of the problem. Because companies have grown used to putting up with the problems inherent in mainframe system design.

Like the fact that you can't always have all the information you want, when you want it.

When it's working to capacity, you have to "queue."

And, when you want to expand that capacity, more often than not you have to replace the system with a bigger one.

Which often means stopping, retraining staff, rewriting programs—and writing off your initial investment.

If you need a "fail-safe" computer—one that can continue to function even if there's a breakdown in the system—conventional mainframes can handle it. You just buy two identical systems (at double the cost) and one sits idle waiting for the other to break down.

A neat solution if you happen to make the computers. Not exactly good economics for you.

Like it or lump it, these are the "rules" of conventional computers.

Tandem breaks them all.

SO WHAT'S THE DIFFERENCE?

Some ten years ago, Tandem looked at the problem and found a unique solution.

We did it by developing a system which cures all the day-to-day headaches that come with conventional computer technology.

Our system, for example, has fault tolerance built into it. If a single component fails, another automatically takes up the workload.

Data integrity is built-in, too. Which means that vital information shouldn't be lost or corrupted in the event of a fault.

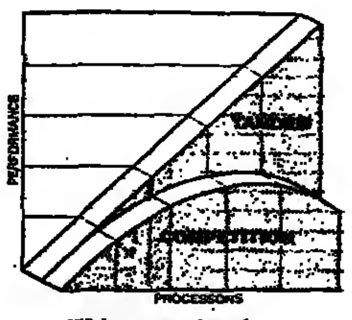
If you want to expand the system—or the database—you can, almost indefinitely. Without disrupting the system or the business.

Like building blocks, you simply add another processor when you're ready.

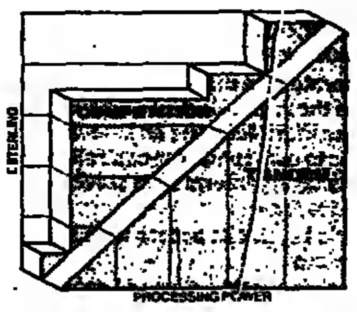
So there's no need to over-invest now in computer power you're not actually going to need until some later date.

And, unlike conventional systems, there's no decline in computer power per £ as your system grows either.

You don't need to be a financial director, or a data processing manager, to imagine what that can mean to computer cost efficiency.



With conventional computers, doubling your processors does not double your performance. With Tandem, each incremental increase in processing power provides matching performance.



With conventional computers, you must continually over-invest to ensure sufficient processing power. With Tandem, growth matches need, so you never invest more than you have to.

What's more, thanks to Tandem's unique distributed database, all system users can have access to the same up to date information simultaneously, anywhere in the world.

However large the organisation is.

(Tandem allows from 2 to16 processors in a single system, and up to 255 systems in a complete international network, all of which can interface with each other.)

If that sounds complicated to operate, it isn't.

In fact customers in the prestigious U.S. Cowan/Datamation Survey have voted Tandem No.1 for customer loyalty.

Not once. But for three years running.

Ahead of every other major computer company.

ON-LINE TRANSACTION PROCESSING. SURVIVAL OF THE FITTEST.

A Tandem on-line system doesn't just solve the problems of conventional mainframe computers.

(As if that weren't enough).

It actually ushers in a new age where the computer can respond far more effectively to the changing environment in which business must operate to survive.

An age where management is based on information—not intuition.

Where information is fresh, not hours or even weeks old. Where people can access, update and act upon relevant data anywhere in the system network, anywhere in the world.

The age of on-line transaction processing.

The fastest growing sector of an already exploding computer market.

SOME OF OUR MAJOR FINANCIAL CUSTOMERS.

ALEXANDERS DISCOUNT	FIRST NATIONAL BANK OF CHICAGO	SAMUEL MONTAGU
BARCLAYS BANK	HOARE GOVETT	NATIONAL GIROBANK
CHEMICAL BANK	HONG KONG STOCK EXCHANGE	NATIONWIDE BUILDING SOCIETY
DEUTSCHE BANK	LEICESTER BUILDING SOCIETY	NEW YORK STOCK EXCHANGE
EQUITY & LAW		UNION BANK OF FINLAND
FORWARD TRUST		

Thanks to our unique approach to system design, Tandem lead the world in on-line transaction processing.

And, as our phenomenal growth in the last ten years shows, it's here to stay.

We set out in 1974 to develop the first fault-tolerant computer system.

Along the way, we created a system that's highly reliable, simple to operate, easy to expand—and versatile enough to handle the communication needs of virtually any corporation.

No matter how big. No matter where.

A system which can go to work improving your business—without destroying your investment in current computer technology.

Fanciful? We don't think so.

And neither do our existing customers in the financial world, telecommunications, manufacturing, distribution, transportation, retailing, energy—and government.

Throughout the world.

Tandem Computers cut the knot for them. Could we do it for you?

For further information and a copy of our Annual Report, please contact Michael Lambert, Tandem Computers Limited, Peel House, 32-34 Church Road, Northolt, Middlesex UB5 5AB. Tel: 01-841 7381. Telex: 933333. Other offices in the City, West End, High Wycombe, Birmingham, Rochdale and Glasgow.

TANDEM COMPUTERS

Tandem™ is a trademark of Tandem Computers Incorporated.

WORLD LEADERS IN ON-LINE TRANSACTION PROCESSING

• FOR FINANCE • DISTRIBUTION • ENERGY • GOVERNMENT • MANUFACTURING • RETAILING • TELECOMMUNICATIONS AND TRANSPORTATION •

Integration the key to efficient networks

Branch automation

ELIZABETH SAWTON

NOW THAT retail banks have automated their head office operations and interbank transactions, they are turning attention to their branch networks where technology has until recently been something of a hit and miss affair.

In order to integrate branch operations fully into the overall banking strategy, linking branch and head office via communications networks, and branch with remote site banking (such as ATMs), it has been necessary to reassess much of the technology installed in the past. Too often this has been on an unco-ordinated, piecemeal basis, with a particular piece of equipment introduced to deal with a specific function, and the result has been a lot of incompatible technology, and often disappointment in the results it produces.

A report out earlier this year by Touche Ross International* found that banks which had not tied technology into an overall marketing and planning strategy had felt expenditure had not been justified. Instead of reducing costs, technology appeared to have increased them.

A much cited example was the ATM (automated teller machine), which at $15,000 to $20,000 a go is a hefty outlay compared with the cost of a human teller. However, what seems to have been ignored is that the machine can operate consistently for 24 hours a day, whereas the human works for only a third of this time.

Nevertheless, spending on branch automation is set to increase over the next few years as banks begin to introduce integrated solutions to retail operations. A survey by Frost & Sullivan** forecast that the market for bank branch automation equipment in Western Europe will be worth $1,159.5m by 1989 (including software).

A large part of that spending is likely to be on ATMs, which provide the most acceptable face of banking technology and can provide a self-service facility away from the normal banking environment, for example, in stand-alone booths, shops, stations, or of course, in the outside wall of the bank.

The use of ATMs also reduces pressure on the branch and can be an alternative to the vast expense of establishing branches, particularly for some of the non-banks currently entering the retail banking arena. The UK has approximately 22,000 bank branches (including building societies) and there are 6,886*** automated teller machines in the country, which implies that the market has a lot of untapped potential. However, the trend is turning away from individual competitive networks of ATMs and towards shared arrangements. All the big High Street clearers have made agreements (NatWest and Midland, and Lloyds and Barclays), and the building societies have between them established three ATM networks: Link, Matrix and that of the Halifax.

However, the ATM is only part of the branch's operations and depends on the rest of the branch for its running. The traditional counter is becoming increasingly automated, with terminals use to call up account details, update business and provide information. These terminals are linked to back-office computers, which are in turn linked via networks to centrally located mainframes. Suppliers such as Philips, Nixdorf, NCR, Sperry and Burroughs, which dominate the retail banking equipment market, are now coming up with highly sophisticated integrated systems to run the whole branch.

Branches

The Burroughs FSA (Financial Systems Architecture) for example, is based on a flexible integrated system of communicating via microcomputers, with one micro (the B25) acting as the branch controller and operating a cluster of up to 125 B25 work-stations and up to 10 traditional terminals. The system runs both the back and front office, and is easily expandable.

The effect of introducing technology (and usually the aim) is to rationalise staffing.

It releases staff from the more mundane cash-handling functions, so that they can be retrained to market and sell new financial services.

There are several examples of branches which have gone one step further and totally automated the cash functions leaving only a few members of staff to help or offer advice on other services. Perhaps the best-known of these is in Sweden, where Götabanken's Sveavagen branch has been redesigned using technology to perform normal teller functions.

Managing director Bertil Schonoff explained: "The present structure of a bank branch is expensive and ineffective from a marketing point of view. It is difficult to sell services because of the branch appearance and layout."

Thus, the Sveavagen branch has no counter; instead it has a number of dedicated ATMs, providing cash and depositing facilities, and an area is set apart for staff to sell and advise customers on financial services.

Although the Swedes appear to be impressed by the increased efficiency of the normal banking functions which technology has brought about, there has not been much increase in business volume or revenue by releasing staff from their normal functions. Götabanken are nonetheless planning to open several more automated branches throughout Sweden.

In the UK, one of the largest High Street clearers is also experimenting with an unmanned branch. The National Westminster Bank has a fully automated lobby at Basingstoke in Hampshire, in a busy shopping centre. This lobby, which is entirely separate from the main bank, is open from 9.30 am to 4.45 pm (a good hour and a quarter longer than normal banking hours).

Within the lobby are a number of rapid cash tills and full service ATMs, a quick deposit box and two Automated Information Service Terminals (AISTs), which use VDUs and printers to perform services such as balance inquiries, cheque book requests and so on. The AISTs could perform more sophisticated functions if the need arose.

NatWest does not have any immediate plans to open another "unmanned branch"—"We are still evaluating customer reaction," says a spokesman. "However, public acceptance is growing the whole time."

The speed at which automation systems penetrate throughout the bank branch depends on several unquantifiable factors, such as public acceptance and union agreements. It also depends on there being the necessary communications infrastructure to support the branch's activities—something which is not in the bank's hands.

However, the need to automate at branch level, even if this happens at a more gradual pace than some would like, opens the market for suppliers of both hardware and software; their integrated solutions to banking enable the bank manager to concentrate more fully on the more tenuous business of selling his services in a sharply competitive environment.

*The Impact of Technology on Banking: Touche Ross International, 1985.

**Automation in Retail Banking in Europe, published by Frost and Sullivan.

***Batelle International, ATM Survey, 1985.

The signature recording and retrieval system (SIRRES), to be introduced this year, based on the NCR Decision Mate V personal computer

NCR wins an £18m NatWest order

NATWEST BANK has placed an order, valued in the region of £18m, for 1,000 of NCR's 7010 branch-department processors which connect branch equipment to the bank's new packet switched network.

Two key factors in NatWest's choice of the NCR 7010 were the systems continuous processing capability and its high availability.

The NCR 7010 architecture is based on distributed processing systems connected via a low-cost local area network. This allows multiple processing devices to be configured to meet varying branch requirements.

In another major order with NCR, TSB (England and Wales) has purchased 600 automated teller machines (model 5070) and 300 of the new Auto One range of customer-activated self-service terminals. TSB will be the first users of these terminals in the UK and the order, in all, is worth about £9m.

The purchase of this equipment is part of the TSB's marketing strategy to broaden customer services, and is particularly aimed to support the Saturday opening of branches.

The 5070 "in-branch" ATMs allow customers to withdraw cash, initiate balance enquiries, and make deposits. The new Auto One range provides an interactive enquiry facility and a detailed statement on headed stationery.

The ATM system has been designed for interior use. It has capacity for currency holding, receipting and journalling facilities, being capable of up to 5,000 transactions before money and printer replenishment. Compared to previous models, it also gives reduced cost of ownership, says NCR.

The new Auto One range, announced in January, is a series of units which can provide virtually all the services provided by financial institutions. Besides handling cash withdrawals, deposits and enquiries, it includes such services as arranging loans and advising on different savings and investment schemes.

NCR, a leading supplier of automated teller machines, includes three of the four major UK clearing banks among its customers and the company now claims 75 per cent of the installed UK proof-encoder market.

Last year Lloyds began branch counter automation with 1,000 of NCR's 2262 terminals, following the bank's installation of 80 NCR 2951 terminals to enter information into the new CHAPS automated clearing system. The orders from Lloyds are together worth around £3.5m.

CASE STUDY: THE BENEFITS OF A LOCAL AREA NETWORK IN THE CITY

ONE COMPANY convinced about the value of local area networks (LANs) is the City of London banking firm, Postipankki (UK). It began back in May, 1983, with a small Nestar system, linked to 16 Apple IIIs. That system has now grown to a fully-fledged net with 42 IBM PCs.

Now in its fifth year of operation, Postipankki (UK) is a wholly-owned subsidiary of three Finnish companies. The majority shareholder is Postipankki.

In the City, the bank deals in securities, foreign exchange and money markets as well as providing loans. Just how much of the firm's growth is attributed to its computerisation is hard to quantify. Its expansion is very evident, however, with balance sheet footings in December, 1984, reaching £470m. While business has expanded, staffing levels have been kept low through the increasing use of its computer network.

Even in computer terms, Postipankki's installation is unusual since it is, in reality, a dual system. Alongside the PLAN 4000 network from Nestar (above) runs a terminal emulation system supplied by IBM. The PCs emulate 5250 terminals for Postipankki's System 36 mini. Like the previous System 34, the IBM mini is used to store the company's accounts and reporting.

Since it was the first scheme of its kind, there were some teething troubles. Compatibility problems between PLAN 4000 and 5250 emulation have now been solved. A user can switch between emulation and shared access at the touch of a keypad.

The LAN means that employees use the same software and can share common files. Its main functions are for word processing, electronic mail, presentation graphics and spreadsheets.

A local area network such as this does not bring about an immediate office revolution—as Mr Simon Wheatley, Postipankki's financial controller points out, "the paperless office is still a pipe-dream even when all 53 members of staff have access to a terminal or a PC."

The LAN's electronic mail facility does mean that there is no necessity for reams of paper to swamp desks. However, while letter drafts can be called up on the screen for editing and approval, they still need to be printed and sent out. Seldom do the company's staff need to draw upon traditional secretarial services since most jobs are printed straight out onto headed stationery.

MICHAEL WILTSHIRE

New rules for an electronic age

Regulations

ELAINE WILLIAMS

BANKS, already subject to a number of complex regulations and consumer laws (such as the Consumer Credit Act) have also to take into account new rules which relate to computers. These will form the basic rules by which banks can move fully into the electronic age.

As with any computer-based organisation, a bank has to comply with the new Data Protection Act. This requires that organisations register the fact that they store computer records of a personal nature. This may be something as simple as an address list of account holders to more sensitive information such as credit ratings and loan details relating to customers and employees.

Under the new law, registration of these personal databanks have to take place over a six month period from next month. The regulations will be administered by the Office of Data Protection, a new body set up specifically under the provisions of the new Act.

The Act, however, will come into force in a number of phases over the next two to three years. For example, by 1987 an individual will have the right to examine any information relating to him or herself which is stored on commercial databanks. A person will be able to claim for compensations against any misuse of data, inaccuracies in, or lack of security relating to personal information.

Banks have had to set up new internal procedures to deal with the Data Protection Act. Most have had to appoint full-time staff to ensure that information stored within bank computer systems complies with the law and that databanks store only relevant information. Also, these banking staff have tried to rationalise the computer storage of information.

Regulations on personal data differ widely between countries, which considerably complicates the move towards electronic banking. Sweden, for example, does not allow the storage of information of its nationals on databases outside its own country. This is probably one of the strictest personal data laws. This would prevent, for example, the storage of a number of foreign or multicurrency accounts belonging to one customer to be stored on a single computer outside Sweden.

Licence

But the growth of banking communications networks on which electronic banking technology relies makes the transmission of data easy and difficult to control. Banks in Britain are building up considerable private data communications networks, both for internal use for branch automation, as part of the provision for extra electronic services known as value-added services to large corporate customers.

Banks in the UK are subject to regulations in order to provide such information services. They have to apply for a Value Added Network General Licence which allows them to sell a communications links to a third party provided it offers information with the system. This regulation aims to protect British Telecom's market on the provision of communications lines. However, with the partial privatisation of British Telecom, the government is considering changes in licensing which may allow greater competition in this respect.

Apart from these constraints, banks have to consider how to implement regulations which will protect customers against fraudulent use of electronic banking services, the misuse of electronic fund transfer at point-of-sale (Eftpos). Banks are faced with a dilemma here as they need to make electronic services simple to use—but difficult to abuse. Personal Identifications Numbers (PINS), coupled with extra security codes to allow access to electronic banking, have been the chosen option of a number of countries but some banks feel that this does not give adequate protection to either the customer or the bank. With electronic networks it is difficult to pinpoint whether misuse of a banking service is due to the account holder or to a third party. Yet banks do have a duty to ensure that a customer is protected.

Banks have considered the possibility of cheque transactions over electronic networks for many years. This is where an electronic facsimile of a cheque is transmitted to the correct branch for payment rather than physically presented as they are today. Apart from the high cost of truncation technology today, there is some concern that an electronic facsimile may not be sufficient to allow payment to legally take place. Banks therefore, hope to replace cheques as much as possible with credit cards and other forms of payment systems such as direct debits which are more amenable to electronic conversion.

Computers in Banking and Finance 11

Rapid power under pressure

Back office systems

BORIS SEDACCA

THE INTERNATIONAL banking, foreign exchange and money markets have scarcely seen so much activity in the past as they have in the last year or so, fuelled mainly by the U.S. dollar's roller-coaster movements.

As the City of London braces itself for "Big Bang"—the general widening of the whole financial market—it is inconceivable that the sheer number of transactions could have taken place without the use of computers.

Dealers at the sharp end of the markets have to make rapid decisions based on numerous calculations derived from a combination of external information services and their own internal positions, and this increasingly requires the use of powerful computers of a kind which can rapidly display calculation results on a screen.

However, once a deal is struck, the paperwork, or more specifically the transactions, still have to be completed and they require another type of computer altogether. In other words, back office systems are more oriented towards processing transactions which are less time-critical.

International banking, for example, is a specialised business, characterised by a relatively small number of complex, high-value transactions. The average international banking operation does not require mainframe computers of the type which provide the lifeblood to the retail banks with their huge transaction volumes.

The Industrial Bank of Japan's UK merchant banking subsidiary, IBJ International, raises finance through the Euromarkets and the London office deals on its behalf, managing its dollar and yen bond issues.

In September last year, it installed a Stratus XA600 fault-tolerant minicomputer worth £250,000 for its dealing room system which will support 90 telecommunications lines to its 30 dealers, or three lines per dealer, one of which will support an IBM Personal Computer, and the other two for external information services.

IBJ International has also been running a Nixdorf 8870 back office system for some years now under Holland Automation's Nibsol package.

Mr Jeremy Rees, associate director of IBJ International, says: "We have virtually doubled in size in the past year or so, and moved up to the top of the league in Eurobond dealings. The Nixdorf was getting too small for our workload, so we are transferring our Eurobond settlements onto the Stratus.

"We started developing a front-end system for dealers, traders and salesmen on IBM Personal Computers with communications to the Nixdorf for back office accounting."

The use of digitiser tablets allows numerous functions to be selected rapidly by the dealers, something which would take much longer if they had to key in commands conventionally through the standard PC keyboard. The software for the tablets has been written by Holland Automation and is based on Logica's Rapport database management system.

With over 400 banks and licensed deposit takers operating in the City of London alone, international banking is a lucrative market for hardware and software suppliers. As in most lucrative markets, one company usually tends to dominate with a couple of competitors in hot pursuit.

Back in February, BIS Software won its 400th order for its best-selling Midas international banking system from BBL Australia, through an associate Australian company, Johnston Brown and Associates.

Mr Tom Urban, deputy chairman of BBL Australia, says: "It was important that as an Australian subsidiary of a Belgian bank, Banque Bruxelles Lambert, we could modify such factors as base currency, industry codes and reporting formats."

Another bank found the yield calculations for a Eurobond dealing support system were taking too long on an IBM System 38-based back office system which was written in IBM's RPG III programming language. BIS decided on horses for courses, and wrote a package called Bond Aid, supplied on a Perkin Elmer minicomputer.

Mr Stanley Smith, director of BIS software, says: "We are not actually moving away from IBM. When we embarked on the Bond Aid project, we needed small cheap processors with a number of fast screens.

"The Bond *Aid* dealer support terminal basically provides a high-speed modelling system for Eurobond calculations. IBM did not have the right system at the right price at the time."

Marketing

Another back office international banking package, Ibis was originally developed by IDS for the London branch of the Italian International Bank. IDS installed 13 Ibis systems: 10 in London, one in New York, one in Stockholm and one in Dublin. After a year of marketing by IDS, the IIB took over Ibis again and there are now 25 users for it.

One serious contender to challenge BIS'e Midas package was a package called Kapiti, originally developed by Kapiti Associates in New Zealand, but marketed for some time by Hoskyns before recently returning under the control of Kapiti's Windsor-based marketing arm. The company claims to have some 300 Kapiti sites in 50 countries.

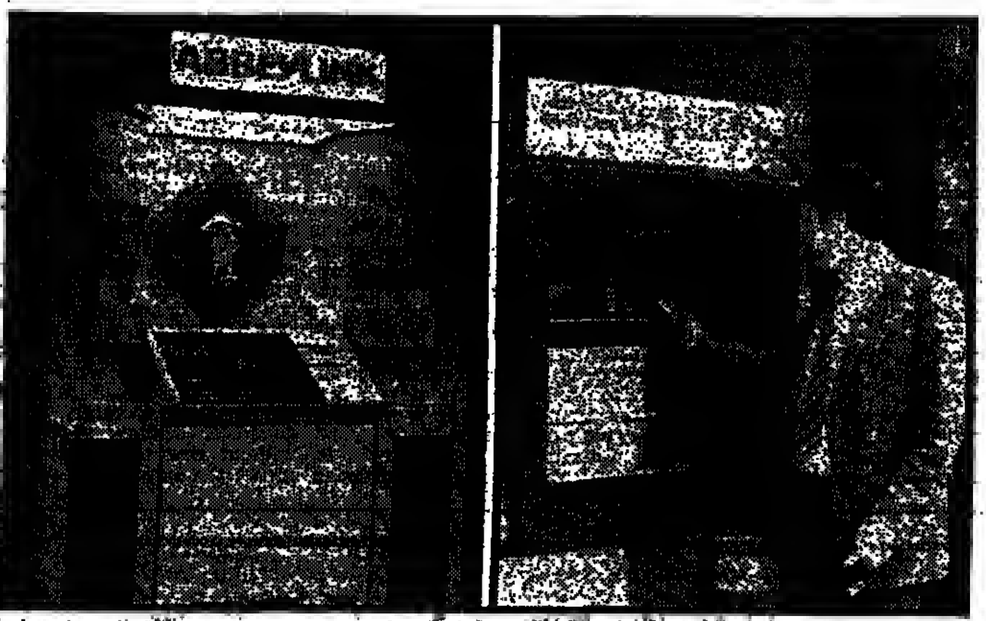
Geisco UK offers a number of software products for international banking and foreign exchange operations. In the cash management area it offers facilities such as balance reporting from banks to corporate customers, funds transfer which allows corporations to initiate payment instructions electronically for multipoint delivery to banks, and a Corporate Treasurer's workstation called Micro*CTS.

Also offered is an IBM PC front-ended Global limits system with sophisticated facilities such as the passing on of a bank's unused limits to its next dealing room on the dateline. The company is also developing touch pads with graphics symbols for main functions available on its PC-based systems.

Mr Otto Hager, a director of the Dresdner Bank (established in Dresden in 1872, but now located in Frankfurt/Main), says: "Up until now, it has only been possible to allocate predetermined portions of the overall limit to the various offices.

"Now we can display the overall limit and permit each dealing room to make use of it until the resources are exhausted. This eliminates the shortcomings of manual systems which prohibited one office from doing business with a certain party because its allocated limit was exhausted when another office may have still had open reserves."

Another computing services and information network operator, Tymshare, offers e bureau-based service called International Banking Information Systems which provides interfaces to information on such things as precious metals and financial futures from Tymshare's foreign exchange, money markets, letters of credit and Eurobonds systems.



Britain's building societies like the Abbey National and Halifax, the two biggest, are moving strongly into automated teller machines to provide more convenient access to accounts

Rivals battle over cash dispensers

Building societies

MARGARET HUGHES

HAVING SCORED one first with The Nottingham's home banking service, building societies have just scored another with the Anglia's cashless shopping (EFTPOS) scheme.

Just e week ago Anglia went live with its Paypoint scheme, which it has developed in conjunction with ICL, at three stores in its home town of Northampton — British Home Stores, C & A and Beatties, the Midlands department store. Next week the scheme will be launched officially and over the next six to nine months will be extended to include 100 retailers and petrol stations with nearly 200 counter-top terminals in the Northampton region.

Paypoint has been developed in conjunction with ICL which is sharing equally in the £1m initial costs. Retailers will pay e fee for participating in this first cashless shopping scheme, but the fees have been pitched to undercut the charges imposed on retailers by both banks and credit card companies. The maximum charge will be 1.5 per cent of the transaction value and lower for outlets such as supermarkets which operate on fine margins.

British Telecom has yet to co-operate in the project despite its key potential role in cashless shopping. Major retailers, whose turnover and transaction values justify an outlay of £300 e year, have leased a telephone line for Paypoint, but smaller retailers are having to use the Dial Up scheme whereby they pay the minimum local call charge of 4.7 pence, increasing the cost of operation.

Initially, Anglia's cashless shopping will be limited to the Northampton area and to its own cardholders, but ultimately the aim is to extend Paypoint both geographically, and to other card issuers such as credit card companies, banks and retail stores and other building societies.

Participation by other building societies is a likely development, given the Anglia's founder role in MATRIX, the building societies' own shared networks of cash dispensers or automated teller machines (ATMs). Seven building societies now participate in MATRIX, though their ATM networks are on varying stages of development.

The most recent new member is Bristol & West joining the Anglia, the Alliance and Leicester, Leeds Permanent, National & Provincial, Bradford & Bingley, and the Woolwich. At present, the Anglia, which has already installed 10 cash dispensers, with another 30 planned by the end of November, Leeds Permanent, with 20, rising to 50 by the end of the year, and the Woolwich which introduced its first 10 ATMs earlier this month and will extend this to 30 by the end of November, are the furthest advanced of the MATRIX members.

The dilemma facing building societies, and one which is particularly acute for proposed merger partners, is which ATM network to join. While seven building societies have established MATRIX, other societies, such as the Nationwide, once a MATRIX member, Abbey National, and 12 other smaller societies, which have grouped together as Funds Transfer Sharing, are members of LINK. This is a quite separate 21-member-strong, shared ATM network which includes other financial institutions such as American Express, Citibank, the Co-operative Bank and National Girobank.

Abbey National had planned to be the first member of LINK to have a cash dispenser in operation. But the introduction of its Abbeylink network, announced in February with the launch set for May, has been held up by the intervention of the Chief Registrar of Friendly Societies. He would not give the go-ahead for the system until Abbey National's ATM network was linked directly to its mainframe computer.

Initially, the society had planned to introduce an off-line system, upgrading it later to real time. The Chief Registrar objected to this because there was a potential for account-holders to overdraw on their accounts, a phenomenon which is prohibited under present building society legislation.

The chief registrar also expressed concern over Abbey National's participation in shared schemes with other financial institution, which be had earlier pointed out could contravene existing legislation. In his view the situation can only be clarified by the lengthy procedure of a court ruling. As a result Abbey National has established a separate company to own the machines which will be leased back to the society. In much the same way, Abbey National and other societies have established separate housing associations to undertake house building.

Meeting the chief registrar's requirements has meant that the launch of the Abbeylink system has been delayed until November, but it is still hoped to have 50 in operation by the end of the year.

The Nationwide, which plans to introduce its first cash dispenser in November, has had to overcome similar obstacles. But a greater problem is its proposed merger with the Woolwich. One of the major hurdles which the two societies have to overcome if the merger is to go ahead is both the incompatibility of their main frame computers, and the separate routes which they have taken on cash dispensers. A decision will have to be taken on whether the new society, Woolwich Nationwide, is a member of MATRIX or LINK. Initially it may well remain a member of both. One of the difficulties in making the choice is that whilst Link may have e broader spread of members the MATRIX network is both further ahead and so far easier to operate, not least because its members have a greater number of similar needs.

Ultimately, the consensus is that the two rival systems will merge, joining forces with banks and credit card companies. But there will be e great deal of angst and professional pride to be overcome before that day arrives. It is significant that the world's largest building society, the Halifax, is not a member of either.

Its ATM network is far the furthest advanced with 351 cash dispensers in operation. Its ATM service is also more sophisticated in that its Card Cash account is a two tier account which pays a high rate of interest on deposits of over £2,000. With more than 800,000 Card Cash account holders under its belt, and the claim that 92 per cent of its members now have a cash dispenser within easy travelling distance, it can afford to wait until the dust settles between the two rival systems—after which it will, in all probability, become e senior member of whatever national network emerges.

City unclear on Big Bang

The London Stock Exchange

ELIABETH SAWTON

WITH SCARCELY 12 months to go before Big Bang transforms trading activity on the London Stock Exchange (LSE), both by the abolition of fixed commissions on securities and the move to dual capacity (where a firm can act as both principal and agent), the City seems to be far from claar on several key issues; namely, what technology should be installed to execute automated trading, who should provide it end who should be allowed to trade on the Exchange.

The issues are closely tied and reflect the underlying reluctance of the traditional City institutions to relax their close control on business; the Stock Exchange wants to maintain control of both the information and the trading systams used after Big Bang, while at the same time acknowledging the increasing interactivity and expansion of markets globally, and the associated pressure to relinquish some of this control.

Likewise, with the question of membership of the Exchange, the Council is still undecided on criteria for joining, although it is "committed to allowing outside firms to join." As yet undetermined is the price of entry and the type of membership on offer.

Although the Exchange has its automated quotation system (SEAQ) almost ready, the actual trading of shares will initially take place with the traditional paper confirmation slips and telephones.

Quotes

Original plans to build an in-house system, Mantis, which was to be introduced about a year after SEAQ, is still under discussion. An extension of SEAQ will allow for the trading of small order executions, mostly on behalf of private investors, but a system for the automation of the big block trading which is the core of the Exchange's activity, have yet to be decided.

SEAQ, which will be transmitted to all members on Stock Exchange terminals, will display quotes of all market makers in order of price, details of previous trades, including price, size and time of deal, high and low quote for the day, accumulated number and value of shares traded on the day, plus company news and important announcements.

It will be used as a means of matching up different market makers and brokers buy and sell bids—"a kind of electronic Exchange and Mart," says one broker.

Plans for automated trading after Big Bang allow for a broker to selec tthe best quote from his SEAQ pages (and the obligation to buy at best execution still holds), and then go in and buy or sell, via his terminal.

Confirmation of trades will be carried out by the Exchange computer and written confirmation provided. This puts a heavy burden on the technology; it must be fast, efficient and capable of handling large volumes. Moreover, it must be operational much sooner than originally anticipated—as soon after Big Bang as possible to meet the growing demands of the large, technologically edvanced firms which are eager to compete in the global marketplace.

Negotiations

It is no secret that Reuters and tha U.S. trading system, Instinet, to which Reuters holds the overseas marketing rights, are ready in the wings to provide this antomated trading service and are currently involved ina protracted series of negotiations with the Stock Exchange.

Instinet, which is used by about 300 broker/dealers and institutions in the U.S. and bas a daily volume of five million traded shares, has the big advantage of a proven track record in running antomated trading on NASDAQ (National Association of Securities Dealers Automated Quotations System).

Instinet chairman, Mr Bill Luplen has been vocal in his criticism of the Stock Exchange's determination to build its own trading system, and be is not alone. One London broker says that "the Stock Exchange should confine itself to the regulatory function and leave the technical operations to a commercial organisation that really knows what it is doing."

However, as a Stock Exchange spokesman countered: "Instinet is a system run by someone else; that makes the Exchange second in command."

The best that can be said at this stage is that all three parties are talking. Reuters are due this autumn to introduce Instinet into Europe for North American trading only, to begin with, incinding UK stocks with U.S. listings. This, however, will also set them up conveniently to extend facilities to London-listed stocks on the LSE.

Meanwhile, the Stock Exchange Council has announced rule changes that open up trading for London's brokers in advance of Big Bang. First, British member firms are to be allowed to trade in UK stocks quoted on the New York stock exchange in the form of ADRs (American Depository Receipts), and in response to this the New York Exchange is opening half an hour earlier to allow more time for trading with London.

This is an adroit move to allow UK traders to compete with their American counterparts; bear in mind that some of the most important UK companies are traded beavily on the U.S. markets—ICI, for example, has more than 60 per cent of its share traded on U.S. markets.

The second rule change allows outsiders to own 100 per cent of a UK Stock Exchange member firm from March 1 next year. If an outside company bolds more than 29.9 per cent of the capital of a member firm it has to become an external member of the Stock Exchange, and prior to next October, any outsida firm has to undertake not to trade in dual capacity.

Deregulated

Both these changes belp to erode some of the barriers to international trading of equities. The Stock Exchange bas already established a quotation system in international securities traded in London. SEAQ International, which has attracted considerable strength (Goldman Sachs, Shearson Lehman, Vickers da Costa, Bache Securities among others).

SEAQ International operates on NASDAQ lines and is a useful litmus test for the Stock Exchange to gange bow well the City will react to the more exposed system of qnoting after Big Bang.

Reuters bas also launched a similar service, bowever, and bas attracted an equally impressive groop of market makers. To City watchers this only accentuates the determination of the big information provider to take a large chunk of the business in trading systems in the deregulated market.

Perhaps the most pertinent observation on this flurry of preparation for Big Bang comes from a leading New York consultant, Richard Radez, who warned earlier this year: "If the emerging British securities firms do not acquire the capability to rival the computer-based securities trading systems of leading Wall Street firms, they run the risk of seeing the U.S. investment banks emerge as the major winners in the ongoing deregulation of the London financial markets."

The traded options market of the London Stock Exchange

Close watch on new technology

Union viewpoints

HELEN HAGUE

THE IMPACT of the increasing use of new technology in Britain's clearing banks is being monitored by the two trade unions which organise workers in the sector.

Between them, the Banking, Insurance and Finance Union and the non-TUC Clearing Bank Union represent in excess of two-thirds of the 250,000 staff in the clearing banks.

In the wake of tha recent collapse of the fifth round of merger talks, the CBU and Bifu remain divided. However, they are united in their desire to reach new technology agreements with employers which will guarantee job security and negotiating rights.

This goal has, to date proved somewhat elusive.

Bifu—which has around 75,000 of its 156,000 membership in the clearing bank sector—last month relaunched its campaign to alert bank employees to the implications of new technology.

The relaunch comes after seven years of attempting to win new technology agreements. So far, no employer has agreed to give the union negotiation rights over the introduction of new technology.

In Bifu's definition, new technology on acceptable terms means active participation in discussions leading to its implementation with benefits passed on to employees—particularly in reduced working hours.

Debate within the union takes place against a backdrop of predictions of job losses, widespread "de-skilling" and the erosion of traditional promotion prospects if new technology advances without agreements acceptable to the union.

The introduction of Clearing Bank Automatic Payment Systems (CHAPS) has led to a loss of some messengers' jobs by natural wastage. Bifu argues advanced technology should be used to benefit, not displace employees.

Though the union does not have an apocalypic vision of the imminent arrival of the cashless society the ramifications of electronic funds transfer at the point of sale (Eftpos) will be closely watched.

Eftpos could hold the key to a cashless sbopping revolution. In lay terms, it means that a shopper can go into a store and purchase goods with a plastic card.

It will link with an authorisation terminal which will check how much money is in the customer's account and debit the amount spent. All paperwork is cut ont. And the fear is that jobs will go, too.

Three Eftpos pilot schemes were announced this autumn. The increasing use of automatic teller machines (ATMs) both inside and outside banks has been one of the most visible changes in banking services over the past five years.

The National Westminster Bank and Lloyds offer Saturday morning services (without cashiers). Other staff are there to offer specialist services.

Trend

The trend would appear to be moving towards the automatic bank counter, with customers keying in requests for cheque books or standing orders without them having to be processed by staff.

In the longer term, the prospect of home banking poses an evident threat to jobs. Though in its early stages, the unions are keeping a vigilant eye on developments.

Changing technology is drastically altering traditional career promotion routes for bank employees, according to Bifu. The days when a 16-year-old school-leaver could aim to become a bank manager by 45 are now gone. The majority of management recruits are now graduates.

Barclays announced recently that new recruits would be streamed. Eighty-five per cent of new entrants will not have recourse to time off to take banking exams for career enbancement. Bifu claim this is tantamount to an admission that career development prospects are severely limited.

The union is keen to see a complete overhaul of job evaluation schemes in banks, as most were drawn up in the early 70s, before new technology gathered pace.

As banks move into new areas of business such as mortgages and insurance, tha union expects its membership profile to alter. These sectors—along with conventional credit cards—are earmarked for growth. There is a belief in some quarters that staff numbers in total will continue to show a slight rise until the end of the decade.

Mr Colin Moore, Bifu's assistant general secretary for its computer section, argues that without new technology agreements the future holds out the prospect of fewer jobs and impoverished career development.

"The fear is that people will be recruited at lower grades basically to input and extract data from computerised systems, rather than starting on the first rung of a career ladder" says Mr Moore.

Union activists believe there is a considerable degree of complacency among members on the impact of new technology.

The problem of apathy, they argue, means that staff who unquestioningly comply with the introduction of a new machine may be speeding their own obsolescence—or someone else's within the clearing bank network.

Hence the relaunched awareness campaign.

The CBU is a confederation of the in-house unions at Barclays, National Westminster and Lloyds. It represents 99,000 bank employees and is traditionally more low profile than Bifu.

On computerisation, the union sees its major objective as the achievement of new technology procedure agreements which commit employers to consultation. The agreements should cover retraining, redeployment, job-evaluation hours and patterns of work, as well as health and safety aspects.

FINANCIAL TIMES

Monday October 21 1985

Tight terms of BHP deal surprise banks

BY ALEXANDER NICOLL IN LONDON

BANKERS who learned on Monday morning of the $1bn financing for Broken Hill Proprietary, the Australian resources group, were still emitting audible splutters on Friday night at the tightness of its terms.

County Bank, the merchant banking arm of National Westminster, was described by the more restrained as "brave" for launching such a large deal – the standby portion is $700m – with no margin above London interbank offered rates, a 10-year maturity, underwriting four basis points (rising to 6¼ after seven years) and a utilisation fee of five basis points, rising to 12½ if the standby is more than half used.

The managers argued that BHP, as one of the largest and best-rated Australian companies, deserved prime pricing and that the terms were intended to be aggressive. The fact that the company was the target of takeover bid speculation, they said, was immaterial in the raising of such finance.

There appeared to be no doubt that the deal would be fully subscribed, though some bankers questioned whether the setting of such fine terms would enable BHP to assemble as comprehensive a group of top-ranked banks as its underwriters – particularly in view of the 10-year maturity. As bankers digested BHP, a steady autumn flow of smaller mandates was under way.

Akzo, the Dutch chemicals group, mandated Credit Suisse First Boston to arrange a $150m 10-year revolving credit of which $100m is committed. The borrower may draw multi-currency advances or sterling bankers acceptances through a tender panel. The committed portion is divided into two equal tranches with an underwriting commission of an average eight basis points rising to 10 if the second is used. There is a facility fee of 10 basis points and a spread over Libor of 12½ basis points for the first tranche and 18¾ for the second.

London and Manchester, the UK insurance group, is rearranging on finer terms a sterling transferable loan facility it arranged at the beginning of the year to back its mortgage portfolio. Banks already in the syndicate are being asked by Samuel Montagu to increase the total from £200m to £300m. The maturity will be kept constantly et seven years through annual renewals. The spread over Libor is 35 basis points compared with 43¾ on the original deal. There is also understood to be a 2½ basis-point renegotiation fee, management fees of up to 12½ basis points and a fee based on the extent to which the facility is used.

Terms also emerged on a facility for another British borrower, the investment group J. Rothschild Holdings. S.G. Warburg is leading the deal, e $200m multi-option facility including a $100m five-year committed facility on which the margin over Libor is 10 basis points and the utilisation fee five basis points if it is more than half used. There is a facility fee of 7½ basis points for the first three years and 10 thereafter. Warburg will arrange the distribution of any Euronotes, offering participating banks a crack at each drawing, and there will be a tender panel for cash advances.

Elsewhere, the "Bonus" facility for R.J. Reynolds was increased by Bank of America from $300m to $400m after being heavily oversubscribed, and Piedmont's went up from $50m to $75m. The arranger, Merrill Lynch, is also heading a $30m facility for Bahrain Middle East Bank providing for the issue of CDs at a maximum of 25 basis points over Libor.

As Bulgaria approached the markets for a new credit for its Foreign Trade Bank through Deutsche Bank, Barclay's put into syndication a $150m credit for the Romanian Bank for Foreign Trade. It is fully underwritten

Nevi, holding company for a Norwegian financial services group, mandated Banque Paribas (London) for a $50m five-year transferable loan facility

Finer margins prompt rush of early calls

BY MAGGIE URRY IN LONDON

PITY the poor floating rate note investor. New issues come on finer and finer margins. And when he reads his morning paper, he discovers that older deals are being called early because the borrowers know they can refinance more cheaply.

Once again Sweden has shown the way to other borrowers. Last week it called a $1bn issue, only two years old. This year Sweden will have repaid far more floater paper than it has issued.

With the EEC's refinancing of its $1.8bn deal and Denmark's call of its $600m perpetual, plus a host of other smaller issues, the total amount of floating rate note paper called this year comes to well over $10bn, according to figures from the Association of International Bond Dealers.

In 1984 the total was under $1bn.

This year new issue volume has been at a record level, too, and many of the deals called have been refinanced. But even so, investors are finding the yields on their portfolios being whittled away. Their demand for paper is the main reason behind the narrowing margins.

It is a sign of the changed times that the ⅛ per cent margin over the mean between London interbank bid and offered rates (Limean) which Sweden was paying on its issue dated 2003 was considered attractive when applied to the Bank of Scotland perpetual deal launched last week, on the very day that Sweden's bombshell hit the market.

Bank of Scotland is a name which is well regarded in the market. Still, it is e long way from Sweden. The Bank of Scotland also paid much lower fees than Sweden did two years ago. And its deal was successful, with a rapid increase in size.

The fear investors have is that sovereign borrowers will not be so keen to issue floaters now, even at the lower rates. Sweden itself is keeping its own counsel on the subject but has not rushed into the floater market again. It has sufficient cheap money from note facilities. And its first move in the bond markets was to launch a $250m fixed-rate Eurodollar issue – which was trading well on Friday. This week there is a strong chance that Sweden will launch e Yankee deal, perhaps also for $250m.

The fixed-rate new issue managers had a busy week last week with a variety of new deals. On Friday Morgan Stanley revived its warrant structure, used for Denmark and Gaz de France, for Austria. This time the bonds were being syndicated and the warrants being placed. No issue price was disclosed for the warrants though they were quoted at $35 bid. The bonds were trading just within the 2¼ per cent fees.

The deal was a swap into Swiss francs with the other side provided by the SwFr 217m issue for Scott Paper. The creativity of bankers seems to know no bounds.

Apart from Sweden's deal, the issue for Sun was the highlight of the week, and other deals generally lagged behind e rally in the New York bond market.

Equity-linked issues are proving popular still, and Union Bank of Switzerland (Securities) had a blow-out on its hands on Friday with an issue with warrants to buy its parent company's bearer participation certificates which will be fungible with an issue coming in Switzerland. The bonds were trading around 107.

Japanese borrowers are e steady source of equity warrant issues. And there could be even more deals coming from them in the new year when Japanese investors will be allowed to buy detached warrants.

The secondary market has improved over the last week but is lagging the New York Treasury bond market. Unlike that market, there is a supply of Eurodollar bonds which puts e lid on price gains.

There is no shortage of supply in the Swiss franc foreign bond market, where deals have been coming thick and fast. Like the Scott Paper deal, most of them seem to be tied to swaps, and bought deals are very much in evidence. The secondary market has not been too depressed by the weight of paper so far, with prices only slightly lower on the week.

More deals are likely to come next week, though terms seem to be getting e little more generous.

The pace of new issues has slowed in the D-Mark market with only three deals appearing last week. So far in October, 12 issues out of the expected 25 have been launched, and it now seems probable that some of the others will be quietly postponed.

The secondary market started to rally around Thursday lunchtime and by the weekend had made up earlier losses. The strong domestic market and a weaker dollar towards the end of the week helped.

The increase in Coca-Cola's issue in the New Zealand dollar market seems to have persuaded Swedish Export Credit (SEK) to launch a deal. Whether the retail investors which dominate this currency have the same appetite for SEK as they do for Coke remains to be seen.

● Mr David Watkins has been appointed director of new issues et Goldman Sachs. He is a member of the boards of the AIBD and the International Primary Market Association. Mr Richard Sharp becomes syndicate manager at Goldman.

EUROMARKET TURNOVER
Turnover ($m)

Primary Market	Straights	Conv	FRN	Other
U.S.$	1,549.8	—	964.5	339.6
Prev	2,088.2	1.2	12,280.9	164.5
Other	1,252.2	6.1	868.7	101.4
Prev	604.5	—	1,280.6	76.6
Secondary Market				
U.S.$	13,523.8	1,071.5	10,108.2	1,971.2
Prev	12,065.3	1,100.6	13,648.7	1,487.9
Other	3,868.1	58.3	1,104.8	1,634.0
Prev	4,272.1	57.8	806.4	1,741.0

	Cedel	Euroclear	Total
U.S.$	10,660.7	20,801.3	31,462.0
Prev	11,864.7	30,970.8	42,835.5
Other	4,741.7	4,140.0	8,881.7
Prev	3,882.0	4,937.0	8,819.0

Week to October 17 1985 Source: AIBD

BNP seeks presence in Turkish market

BY DAVID LASCELLES IN ISTANBUL

BANQUE Nationale de Paris, the largest French bank, is to enter the Turkish market through a joint venture with Akbank, Turkey's largest privately-owned bank. The deal is the latest in a series of alliances that has brought the number of foreign banks active in Turkey to 20 since liberalisation began four years ago.

BNP will own 49 per cent of the new bank, and Akbank 51 per cent. It will be initially capitalised at $20m.

Mr Erol Sabanci, vice-chairman of Akbank, said the new bank would have about four branches in major locations around Turkey and concentrate on trade financing. Akbank is part of the Sabanci group, Turkey's largest private-sector commercial conglomerate.

This year several foreign banks, including American Express, Chemical Bank, Mitsui Bank and Irving Trust, have entered into partnership with Turkish groups to attack the local market. Alliances of these kinds are viewed as a more rapid way of obtaining market share and breaking into Turkey's tight-knit business community.

AMR lifted by revenue gains

By William Hall in New York

AMR, parent of American Airlines, the second biggest domestic U.S. carrier, lifted third-quarter net income by 11.1 per cent to $87.3m on the back of an 18.2 per cent increase in revenue passenger miles, a key measure of airline traffic.

The latest earnings, equivalent to $1.45 a share, compare with $78.6m, or $1.51 a share, in the third quarter of 1984.

Mr Robert L. Crandall, chairman, said the latest results reflected the "continuing success" of AMR's growth plan and that in expectation of continued growth, AMR exercised options on 20 McDonnell Douglas Super 80 aircraft.

Allis-Chalmers loses $18m in third quarter

BY OUR FINANCIAL STAFF

ALLIS-CHALMERS, the struggling U.S. process equipment group, has reported further losses, with a third-quarter deficit of $18.4m, or $1.40 a share, compared with a loss of $15.6m, or $1.27, a year earlier.

The latest figures include a $3m charge for final audit adjustments on the sale of the farm machinery unit earlier this year to a subsidiary of Kloeckner-Humboldt-Deutz of West Germany.

Losses from this business, and on its disposal, are mainy responsible for putting Allis-Chalmers $168.9m, or $12.20 a share into the red at the nine-month stage compared with a loss of $43.3m, or $3.63, in the 1984 period.

Sales in the latest three months slipped from $216m to $211m, taking the nine-month figure to $643.7m ($623.4m).

Despite the continued losses, Mr Wendell F. Bueche, president and chief executive, said the operations of the "resized and restructured Allis-Chalmers are trending in the right direction." He noted the rise in sales so far this year in spite of soft demand and intense competition in the capital goods market.

Alcoa slips amid weak demand and prices

By Terry Dodsworth in New York

ALUMINUM Company of America (Alcoa), the largest U.S. aluminium producer, registered a small decline in profits in the third quarter, with earnings amounting to $57.1m, or 69 cents a share, compared with $60.1m, or 74 cents, in the same period of 1984.

Third-quarter sales amounted to $1.27bn against $1.43bn a year earlier and for the first nine months came to $3.95bn against $4.36bn. Earnings in the nine-month period were $104.3m or $1.26, against $270.8m or $3.32.

Mr Charles Parry, chairman, said the third-quarter earnings were above expectations, although inadequate. "Business softened from the second quarter to the third, with a 6 per cent decline in shipments and with continuing price weakness in both aluminium ingot and fabricated products," he said. "However, our concerted efforts to improve profitability by reducing costs are paying off."

During the third quarter, Alcoa shipped 432,000 metric tons of products against 439,000 tons in the same period of 1984, with primary aluminium products accounting for 20 per cent of the total this year compared with 18 per cent a year ago.

Commenting on the outlook for the year, Mr Parry said order receipts were down and that he saw little improvement in aluminium prices.

● Alcoa of Australia, a subsidiary, lifted net profits for the first nine months to A$42.1m (U.S.$29.5m) from A$37.8m a year earlier. Revenues rose from A$853.4m to A$884.1m.

The profits rise mainly reflects the effect of a weaker Australian dollar on the company's sales in U.S. dollars. This offset lower metal and alumina prices, and slightly reduced shipments.

U.S. MONEY AND CREDIT

Debt debate puts trading in neutral

THE U.S. credit markets continued to coast along in neutral last week, unwilling to shift gear in any decisive manner until the debate over the debt ceiling is resolved in Washington. On Monday, trading closed down anyway for the Columbus Day holiday, but after that, rates drifted sideways in relatively light activity, falling a little after the Gross National Product figures on Thursday, but then swinging back up again on Friday.

Over the balance of this month, there appears to be no fear that the deadlock over government borrowing in Washington will make the Treasury run out of cash. Even if Congress continues to deny the government authority to increase the limits set on its ability to raise money, the Treasury has some new financing capacity in hand, thanks to a little legerdemain involving the Federal Financing Bank (FFB).

U.S. MONEY MARKET RATES (%)

	Last Friday	1 week ago	4 wks ago	12-month High	12-month Low
Fed Funds (weekly average)	8.02	8.00	7.93	10.10	7.10
Three-month Treasury bills	7.19	7.18	7.00	0.66	6.67
Six-month Treasury bills	7.30	7.36	7.28	0.68	6.91
Three-month prime CDs	7.92	7.96	7.97	10.20	7.33
30-day Commercial Paper	7.80	7.80	7.88	6.90	6.95
90-day Commercial Paper	7.80	7.80	7.90	8.90	7.00

U.S. BOND PRICES AND YIELDS (%)

	Last Friday	Change on week	Yield	1 week ago	4 wks ago
Seven-year Treasury	101½	+ ¼	10.04	10.22	10.18
20-year Treasury	101½	+ 1¼	10.60	10.78	10.77
30-year Treasury	101½	+ 1¼	10.45	10.60	10.57
New 10-year "A" Financial	N/A	+ 1½	10.98	11.13	11.18
New "AA" Long utility	N/A	+ 2¼	11.60	11.75	11.75
New "AA" Long industrial	N/A	+ 2¼	11.38	11.63	11.63

Source: Salomon Bros (estimates).

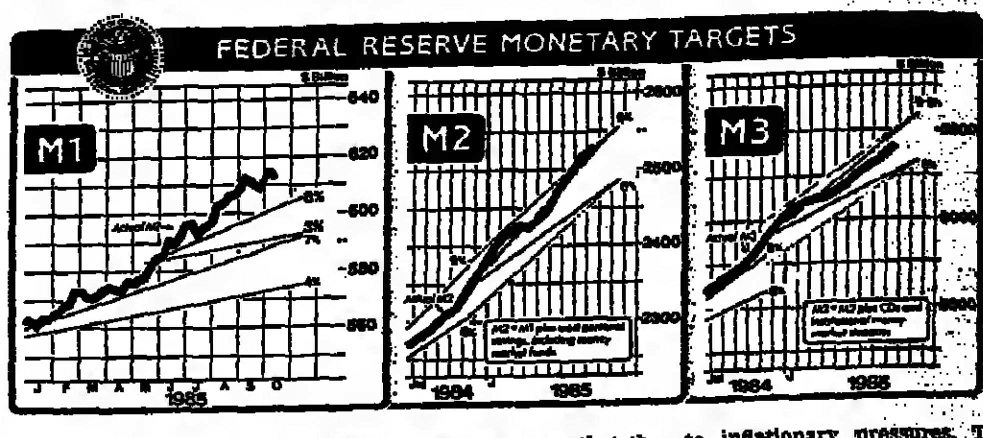
Money Supply: In the week ended October 7 M1 fell by $3.3bn to $611.5bn.

This Wednesday, $9.2bn of new 2-year notes will be auctioned, of which $8.1bn will go to the replacement of maturing debt, with the other $1.1bn to the expanding needs of the public purse. By using the FFB, where debt is covered by the full faith and credit of the government, but which does not count towards the legal debt ceiling, the authorities will avoid a technical breach of their responsibilities. But they are well aware that the game cannot go on forever. Some $5bn of the FFB's resources has already been used up, and, after this week's offering, it will only have $8.8bn of unused borrowing authority left.

So the log-jam in Washington clearly has to break sometime, and when it does, the credit markets will be faced with the problem of absorbing around $50bn by the end of the year. The apprehension over this prospect was compounded last week by a jittery wait for the third quarter GNP figures. Much of Wall Street had been vigorously rearranging its growth forecasts over the previous week or so, with the consensus moving towards a substantial upward revision of the 2.8 "flash" figure put out earlier.

In the event, the 3.3 per cent announced by the Commerce Department looked as though it had a little for everyone in it—it was up sufficiently to confound any talk of imminent recession, but not sufficiently high to promote any fear of runaway growth that would pose yet another strain on borrowing. Indeed, the mild downward movement in rates on Thursday was an indication that investors saw no particular threat to the system from this pace of growth.

The M1 figures, also out on Thursday, made very little impression: the steep $3.3bn fall was expected after the huge jump in the previous week inspired by banking flow dislocations following Hurricane Gloria. And the economic statistics on Friday — a 1.2 per cent rise in personal consumption expenditures and an increase of 0.3 per cent in personal income—also caused little reaction, since they were broadly in line with the GNP statistics.



The more important question over M1 is whether its present longer-term rate of expansion will force the Federal Reserve Board to begin pulling on the reins a little. Over the last 12 months, M1 has risen by 10.9 per cent and in the most recent three months it has been running at an annualised rate of 14 per cent. Little wonder that some economists argue that the Fed's next move will have to be towards a firmer policy in an attempt to ward off fears of renewed inflation.

Other economists, on the other hand, point to the present subdued rate of inflation — in the third quarter it was running at 3.3 per cent — as giving the Fed plenty of scope to continue its present monetary policy. There is no sign, either, that the industrial sector is working at a rate as yet that will add to inflationary pressures. The September capacity utilisation figures show a slight decrease to 80.2 per cent from 80.5 per cent, and, on the historical evidence would need to be at least 2 percentage points higher before they began to put much strain on prices.

The balance of Wall Street forecasts seems to be towards a broadly unchanged policy from the Fed for the time being.

Terry Dodsworth

UK GILTS

Lawson's speech dispels some of the unease among brokers over his new strategy

IN THE gilt-edged market at least Mr Nigel Lawson's speech at the Mansion House on Thursday clearly had the desired effect.

The Chancellor's renunciation of this year's official target range for sterling M3 and the decision to abandon "over-funding" triggered gains of up to ¾ point for long-dated stocks.

Within an hour of the market's opening on Friday the Bank of England had sold out of the £800m Treasury 10 per cent 2001 issued by tender a day earlier. By 3.30 pm it felt emboldened to issue a further £600m of stock.

As yields for 25-year gilts fell to 10.1 per cent just fractionally above the best of the year, some brokers began to talk of another determined assault on the 10 per cent yield barrier.

The speech, of course, had minuses as well as pluses. If the Chancellor is unwilling to nudge up longer-term yields when he needs to tighten monetary policy, the strain will be taken by short-term interest rates.

Here Mr Lawson stressed that official policy was at present "cautious," but that he would not hesitate to push up rates if necessary.

Short-dated gilts responded by moving in the opposite direction to the longs, although losses were limited to ¼ point.

At the same time the market's knee-jerk reaction in pushing up prices for longer maturities did not entirely dispel the unease of some brokers over the Chancellor's new strategy.

But to take the positive points first, despite the Bank of England's rather heavy-handed issue of extra stock on Friday, the decision to dump sterling M3 should considerably ease prospective funding pressures.

"The objective of funding policy is to fund the PSBR (public sector borrowing requirement) over the year as a whole: no more no less. And that we are doing," Mr Lawson said.

In a section of his speech slightly earlier, he made it clear that the definition of funding included sales of debt both to the non-bank private sector in Britain and to overseas investors. The only sales excluded are those to the UK banking system.

None of this is to suggest that the Government Broker can simply rest on his laurels. The exact figures are almost impossible to untangle, but the PSBR has probably been underfunded so far this year, particularly as the Treasury's £7bn target looks increasingly optimistic.

That said, broker W Greenwell estimates that even with a £1bn overshoot in the PSBR, the net funding requirement, including national savings, over the next five months may total only £4bn.

If the supply outlook looks favourable, the brokers' economists dismissed by Mr Lawson as "young Turks" are not so unambiguous about the whole package.

The first doubt concerns the extent to which the Treasury's tough approach to short-term rates can be taken at face value.

Last month's Group of Five agreement to seek a lower dollar included provision for changes in the cross rates between non-dollar currencies. An implicit element was a fall in the value of sterling against the D-Mark.

That pact has so far worked and Britain has secured a sizeable devaluation against the West German currency within the framework of overall stability for the pound.

That leads economists such as Mr Richard Jeffrey of broker Hoare Govett to believe that if sterling were to rise strongly against the D-Mark, the Treasury would seek a cut in short-term rates.

The second source of unease focused on sterling M3 itself. The market has broadly accepted the official view that the measure has been hopelessly distorted by structural change; and Mr Lawson's forecast of inflation of below four per cent by mid-1986 is widely accepted.

But there is still a feeling—apparently shared by the Bank of England—that sterling M3 may be saying something about trends after that, a period when the Government will be under pressure to reflate as the general election approaches.

Overall confidence has not been helped by the decision to drop any reference in next month's Autumn Statement to the likely scope for tax cuts next year. The move, which involves the withholding of official revenue forecasts, is being interpreted as a possible downgrading of the PSBR target for 1986/87 pencilled in by the Medium Term Financial Strategy.

As a footnote it is worth mentioning that the Chancellor's final speech excluded two elements included in earlier drafts. The first was a reference to the European Monetary System, and the second to a hybrid measure—an average of the growth rates of sterling M3 and Mo—which seems to have emerged as yet another unofficial policy indicator.

Philip Stevens

FT/AIBD INTERNATIONAL BOND SERVICE

U.S. DOLLAR STRAIGHTS	Issued	Price	Chg. on week	Yield
AHFC O/S Fin 11¼ 94	100	104¼	+0¼	10.82
AIOC 11 89	75	102⅞	+0¼	0.89
AIOC 11⅞ 90	100	101¾	−0¼	11.45
Amer Savings 12 89	125	102⅞	−0¼	10.90
Amer Savings 12⅞ 89	100	103¾	+0½	11.00
Asian Dev Bk 11¼ 93	150	105¼	+0¼	10.74
Australia 11¾ 90	100	105⅞	+0¼	0.81
[illegible]				

	Issued	Price	Chg. on week	Yield
Sanwa Bk 11⅞ 92	150	104⅞	+0¼	10.78
Saskatchewan 10⅞ 92	100	101⅞	+0¼	10.31
Saskatchewan 10¾ 90	125	102¾	+0¼	9.91
Saskatchewan 11⅞ 89	100	105⅞	+0¼	10.04
Saskatchewan 15 92	150	119¼	+0¼	10.84
Saskatchewan 16 89	125	116¼	+0¼	10.06
Scot Int Fin 14¼ 86	50	111¾	0	12.19
Sears O/S Fin 0 98	900	26¾	+0¼	11.37
Sears Roebuck 10⅞ 91	150	101½	+0¼	10.19
[illegible]				

	Issued	Price	Chg. on week	Yield
LASMO 9¾ 99	44	93⅞	0	[illegible]
Moet-Hennessy 7 99	50	112	+1⅞	[illegible]
Murata Mfg 3½ 00	100	108	+3¼	[illegible]
Nippon Oil 3¾ 99	50	90¼	−3⅞	[illegible]
Ono Pharm 3¾ 89	80	[illegible]	+1⅞	[illegible]
Soc Gen Surv 4½ 94	51	131½	+1¼	[illegible]
Sumitomo Corp 2⅞ 99	75	130⅞	−7¼	[illegible]
Texaco Capital 11¼ 94	1bn	105⅞	+0⅞	[illegible]
Texaco Capital 11¾ 94	500	105¼	+0⅞	[illegible]
[illegible]				

STRAIGHT BONDS: Yield to redemption of the mid-price. Amount issued is expressed in millions of currency units except for yen bonds, where it is in billions.

FLOATING RATE NOTES: U.S. dollars unless indicated. Margin above six-month offered rate († three-month; § above mean rate) for U.S. dollars. C.cpn=current coupon.

CONVERTIBLE BONDS: U.S. dollars unless indicated. Prem=percentage premium of the current effective price of buying shares via the bond over the most recent share price.

WARRANTS: Equity warrant prem=exercise premium over current share price. Bond warrant as yld=exercise yield at current warrant price. † Perpetual.

Closing prices on October 18

INTERNATIONAL COMPANIES AND MARKETS

FRENCH BOND MARKET

Little room remains for interest rate cut

WITH THE French inflation rate edging down to about 5 per cent, yields on state bonds on the Paris capital market, which were falling gently to around 10.7 per cent on Friday, are looking distinctly generous to investors.

French Treasury officials point out that real interest rates in France are now about two points above those in West Germany. Considering the firmness of the French franc within the European Monetary System and with foreign exchange reserves still climbing, the stage might appear to be set for a sharp decline in long-term French interest rates over the next few months.

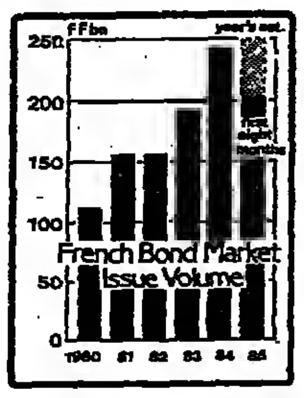
Some room remains for downward movement—but not much. A combination of technical and economic circumstances—as well as political uncertainties which will loom larger with the approach of general elections next March—may mean that Paris interest rates are close to the bottom of the present cycle.

Although the bond market has been spared any flood of new issues in the last few weeks, it has yet to weather the state's last quarter borrowing programme. The government has raised FFr 67.5bn so far this year through bond financing. The Treasury is preparing the market for a further FFr 30bn before the rest of the year, which will help push overall new issue volume for 1985 to above FFr 250bn, comfortably above last year's record.

A further factor unsettling the markets is the tide of financial deregulation measures initiated by M Pierre Beregovoy, Finance Minister. Soma bankers say uncertainty over the effect of these measures has added a "risk premium" to long-term yields.

Following the opening this year of a certificate of deposit market, the Ministry is planning shortly to allow company treasurers to raise funds through a commercial paper market. It is also proposing to open up considerably investment in short-term Treasury Bonds. If fully put into effect these initiatives could drain off large sums previously invested in the bond market.

The Treasury has tried to calm bond dealers' fears by announcing that the commercial paper market will be limited to about FFr 10bn in 1986. This should lower the risk of withdrawals from the bond market of short-term liquidity managed by burgeoning unit trusts and mutual funds, which have grown greatly in size over the last few years. However, the bond market's reliance on essentially short-term investment, much of it channelled from corporate treasurers with cash surpluses, places it in a fragile state which one senior Paris banker last week described as "a house of cards."



The central question hanging over the capital market is how far interest rates can come down in France in line with disinflation without threatening the equilibrium of the banking system?

The Bank of France on Thursday signalled the likelihood of an imminent cut in banks' base lending rates by reducing to 9¼ per cent from 9½ per cent, its money market intervention rates. Paris money market rates have now fallen a full percentage point over the last three months to their lowest since July 1979.

Banks base rates, held at 10.85 per cent since July, have fallen only 1.4 percentage points since January 1983, compared with a fall in inflation of about 4 points since then. A principal reason for the slightness of the drop is the peculiar earnings structure of France's big commercial banks with large retail networks, which rely heavily on interest-free deposits for their profits.

With margins already under pressure this year as a result of slack credit demand, these banks' high overheads costs place serious question marks over profitability as soon as base rates come down to around the 10.5 per cent area. Even though M Beregovoy last week was renewing his customary calls for banks to cut base rates soon, the Treasury is fully aware of the risks for bank profitability in pushing the descent too fast.

The next cut in base rates, perhaps this week, is therefore likely to be only token—possibly around 0.25 or 0.3 per cent. Some seasoned, if cynical, bankers last week were forecasting that more important cuts to around the 10 per cent level will be delayed for reasons of electoral stage management until early in the new year.

David Marsh

Japan urged to ease rules on sovereign loans

By Peter Montagnon in Tokyo

JAPANESE banks are pressing the country's Ministry of Finance to relax regulations on lending to countries which have rescheduled debts in the wake of this month's U.S. initiative on easing the debt crisis.

In particular they are seeking elimination of the 5 per cent reserve requirement which is mandatory on such lending until the rescheduled debt is repaid, or at least a change in rules that would make the requirement tax deductible.

Under the U.S. initiative, banks worldwide have been asked to lend a further $20bn to the main debtor countries over the next three years.

The initial response from the authorities here has been cautiously favourable, Mr Toyoo Gyohten, director-general of the Ministry's International Finance Bureau, said he personally favoured making the reserve requirement tax deductible, though this should be offset by an increase in the level of the requirement itself.

However, such a move is expected to meet resistance from the tax authorities.

Futures contracts flood Tokyo

BY OUR FINANCIAL STAFF

JAPAN'S new bond futures market ended its first two hours of business on Saturday with more than 70,000 contracts traded, about seven times the average daily trading foreseen by many dealers.

"Trading was slow for the beginning and nothing traded for a long time," said one dealer. But later orders were so large that the Tokyo Stock Exchange asked securities companies to tell customers to reduce orders, he added.

Contracts are deliverable in Y100m units of ten-year government bonds of a theoretical issue assuming a 6 per cent coupon, and about 18 different long-term bonds can be used for delivery.

The December contract was the most heavily traded, with turnover of Y6,679bn out of a total of Y7,067bn. It opened at Y102, a yield of 5.686 per cent and closed at Y102.02, having traded between Y101.99 and Y102.04.

● The Chicago Board Options Exchange plans to enter a battle, due to begin on Friday, between exchanges offering competing products based on indices of U.S. over-the-counter equities, writes Alexander Nicoll.

It is to offer options on a Standard and Poor's index of 250 OTC industrial stocks. The Chicago Mercantile Exchange is introducing a futures contract based on the same index, while the Chicago Board of Trade will launch futures on the NASDAQ-100 index under licence from the National Association of Securities Dealers, which is itself trading options on its index.

All the new contracts require regulatory approval, expected on Thursday. The CBOE already trades over 300,000 options a day on an S and P index of 100 blue chip stocks, surpassing by far the volume of many rival options and futures contracts.

Sales and orders boost for Daimler

DAIMLER-BENZ, the West German vehicle group which last week offered to acquire a controlling interest in AEG, has lifted nine months sales by 24 per cent to about DM 38bn ($14.5bn) from DM 30.6bn in the comparable period of 1984, AP-DJ reports.

Dr Werner Breitschwerdt, Daimler's chairman said the gain in sales came amid a sharp increase in domestic car demand and improved orders in Europe for the group's truck division.

Sales by the parent company were up about 22 per cent to DM 27.1bn in the nine month period from DM 22.3bn. Parent company sales exclude those of the aerospace concern Dornier and jet-engine producer Motoren-und Turbinen Union Munich (MTU), in which Daimler acquired stakes earlier this year.

Dr Breitschwerdt said the company expected a "very decent" profit for the year. Analysts generally expect Daimler-Benz will raise its dividend to DM 12.50 a share for 1985 from DM 10.50 in 1984.

Dr Breitschwerdt predicted that Daimler-Benz's car output would rise to 540,000 units in 1985 from 480,000 in 1984, but said production of trucks would stagnate at about 210,000 units.

Wang optimistic after edging back to profit

By Terry Dodsworth in New York

WANG LABORATORIES, the Massachusetts-based office equipment manufacturer hit by heavy losses in its last final quarter, pulled back into profit in the first quarter of its current year and said that it was "cautiously optimistic" about business prospects for 1986.

Net income for the three months to September 30 was $7m, or 5 cents a share, against $51.2m, or 36 cents, a year ago. Sales reached $561m against $554m, and the company set a quarterly record for orders received, which rose by 16 per cent to $699m. Orders were particularly strong in the U.S., increasing by 44 per cent over the last quarter, it said.

In the final quarter last time, Wang produced a net loss of $109m. This setback underscored the slump in the U.S. computer market and reduced income for the fiscal year, ended June, to only $15.5m.

The company said that although cost-cutting action taken in the last half of fiscal 1985 had resulted in the resumption of profitable operations, profit margins remained depressed

NEW INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Book Runner	Offer yield %
U.S. DOLLARS							
Tokyo Corp. ¶‡	70	1990	5	6⅝	100½	Nomura Int.	0.505
Barrick Resources §	50	2000	15	(a)	1200	Wood Gundy	*
Crédit Foncier †ɸ‡	200	1995	10	(b)	100.1	Morgan Guaranty	–
LTCB of Japan ‡	120	1995	10	11½	101⅛	Bankers Trust Int.	11.307
Dai-Ichi Kangyo Bk §	100	2001	15	(2¾)	100	Dai-Ichi Kangyo Int.	*
Korea Exchange Bk (c)†‡	100	2000	15	⅜	100	Morgan Guaranty	–
Ford Motor Credit ‡	150	1991	0	10½	100¼	Goldman Sachs	10.442
Sun Capital Corp. ‡	100	1990	5	10	99½	CSFB	10.132
Yukong Ltd. (d)†‡	30	1993	8	¼	100	Lloyds Bank Int.	–
Pima S & L (a)†‡	100	1995	10	5/16	100	Salomon Brothers	–
GMAC ‡	250	1992	7	10¼	99⅝	Morgan Stanley	10.328
Chrysler Fin. (f)‡	100	1992	7	10¾	100	SBCI	10.750
Yamanouchi Phar. §	50	2000	15	(2¾)	100	Nikko Secs. (Eur)	*
Sweden ‡	250	1992	7	10¼	100	SBCI	10.250
Bank of Scotland (g)†‡	250	–	–	¼	100	Merrill Lynch	–
Barclays Bank Fin. ‡	250	1995	10	10⅝	100½	Barclays Mer. Bank	10.542
Nippon Yusen ¶	50	1990	5	(9½)	100	Nikko Secs. (Eur)	*
African Dev. Bank (h)‡	100	1995	10	10½	99.034	Kidder Peabody	10.561
Tenneco Corp. ‡	100	1989	4	10	100	Morgan Stanley	10.000
Tenneco Corp. ‡	100	1995	10	11	100½	Morgan Stanley	10.915
Austria Pass Thro. Secs. ɸ‡	100	2000	15	11	102	Morgan Stanley	10.720
UBS Finance ¶	100	1992	7	(0)	(100)	UBS (Secs)	*
CANADIAN DOLLARS							
Jacos ‡	70	1990	5	10¾	101½	Nikko Secs. (Eur)	10.351
Amax S/s Finance ‡	50	1990	5	10¼	99¾	Shearson Lehman Bros.	10.310
City of Montreal ‡	60	1995	10	11	100	Société Générale	11.000
NEW ZEALAND DOLLARS							
Swedish Ex. Credit ‡	50	1990	5	17⅜	100½	Merrill Lynch	17.218
D-MARKS							
Oest. Investitionskr. **‡	00	1990	5	0⅝	100	Bayerische Vereinsbank	0.625
Elsam ‡	125	1993	8	6¾	99¼	West-LB	6.875
Lonrho Finance ‡	100	1592	7	7¼	100¼	BHF-Bank	7.203
SWISS FRANCS							
GTE Finance Corp. ‖‡	150	2009	–	7	100	Soditic	7.000
DP Corp. **¶‡	50	1990	–	2¼	100	Crédit Suisse	2.875
Daiwa House Ind. **§‡	100	1991	–	2	100	UBS	2.000
Prov. Newfoundland ‡	150	2000	–	5⅜	99¾	UBS	5.400
Chisso Co. **‡	20	1990	–	5½	99¾	Crédit Suisse	5.558
Nichimen Corp. **¶‡	50	1990	–	2⅞	100	Citicorp Bk (Switz)	2.875
Bk in Liechtenstein **‡	50	1990	–	5	99¾	Crédit Suisse	5.058
Bk in Liechtenstein **‡	50	1992	–	5⅛	09¾	Crédit Suisse	5.169
IADB ‡	150	1995	–	5⅝	100¼	UBS	5.592
IADB ‡	150	2005	–	5¾	99½	UBS	5.793
Toyo Sanso K.K. **‡	10	1990	–	5½	99¾	UBS	5.558
Taihei Dengyo Kaisha **‡	30	1990	–	5½	99¾	Bank Leu	5.559
Dept. St. Izutsuya **¶	30	1999	–	(3)	100	Handelsbank	*
Daiwa Kosho Lease **§	50	1991	–	(2½)	*	UBS	*
Hertz Corp. ‡	100	1995	–	5⅛	100½	Chase Man. (Suisse)	5.185
Prov. Nova Scotia ‡	200	2005	–	5½	99¾	UBS	5.521
Chasa Corp. **§	100max	1991	–	(5½)	(100)	Soditic	*
Borealis Hydro-Cracker **‡	100	1992	–	5⅛	100	SBC	5.125
Niagara Mohawk Pwr. ‡	110	1995	–	5½	100	Soditic	5.500
Scott Paper ‡	217	2000	–	5⅜	100	SBC	5.375
Rautaruukki Oy ‡	30	1997	–	5⅜	99¾	Swiss Dep. & Cr Bk	5.404
Cr. Suisse (Luxem.) **‡	50	1992	–	5	99¾	Crédit Suisse	5.043
Cr. Suisse (Luxem.) **‡	50	1992	–	5⅛	99¾	Crédit Suisse	5.168
Owens Corning ‡	100	2000	–	5⅜	100¼	Handelsbank	5.350
Toyo Real Estate **‡	20	1990	–	5½	09¾	Handelsbank	5.559
ECUs							
Sumitomo Corp. ‡	52	1992	7	8¾	100	Société Générale	8.750
Norsa ‡	100	1995	10	9	100	Société Générale	0.000
Oest. Laenderbank ‡	05	1989	3½	0	101	Banque Paribas	8.625
FRENCH FRANCS							
Eurofima ‡	300	1992	7	11⅛	100	CCF	11.125
EIB ‡	1bn	1997	12	11.7	99.88	Banque Paribas	11.719
LUXEMBOURG FRANCS							
EEC ‡	1bn	1995	10	8⅞	100	Kredietbank Int.	8.875
DANISH KRONER							
Fin. Ins. for Danish Ind. ‡	300	1991	6	9⅞	100	Sparekassen SDS	9.875
GUILDERS							
FGH Mortgage Bk **‡	60	1990	5	7	99½	Bk Mees & Hope	7.122
YEN							
Sumitomo Metal ‡	20bn	1990	5	6⅜	101½	Daiwa Europe	0.019
Mort. Bk. Denmark ‡	15bn	1992	7	6½	102⅛	Nomura Int.	6.096
Sallie Mae ‖‡	25bn	1995	10	8	101⅛	Daiwa Europe	7.834
Turkiye Bk Turkey **‡	7.5bn	1992	7	7.3	100	Mitsui Bank Ltd.	7.300
Australia ‡	80bn	1997	12	0.4	100	Nomura Secs.	0.400

* Not yet priced. ‡ Final terms. ** Private placement. § Convertible. † Floating rate note. ¶ With equity warrants. ɸ With bond warrants. ‖ Dual currency. (a) (Gold) linked; 11% min. first 2 yrs. (b) Mismatch; higher of 1m Libor or 6m Libid+5bp. (c) ⅜ over 6m Libor; flip-flop. (d) ¼ over 6m Libor first 4 yrs; ⅜ last 4 yrs. (e) Delayed cap; 5/16 over 3m Libor. (f) Multiplier bond. (g) ¼ over 6m Limean. (h) Registered with U.S. S.E.C. Note: Yields are calculated on AIBD basis.

UK COMPANY NEWS

Clayform four-point plan in bid for Owen Owen

BY MARTIN DICKSON

Clayform Properties, which is making a contested £40m takeover bid for Owen Owen, the Liverpool-based department store business, launched an attack at the weekend on what it called the group's "woeful record of zig-zag earnings per share."

In its formal offer document to shareholders, Clayform promised a four-point plan of action to "invigorate" Owen Owen's trading activities. It said it would:

- Redevelop certain stores, prefunding the projects with institutional investors. Where appropriate, Owen Owen stores would be retained in the new developments.
- Retain other stores substantially in their present form and use strong management to revitalise trading.
- Sell properties with no viable future.
- Integrate with Owen Owen's retail operations the Clayform subsidiary Schofield's, a Yorkshire-based department stores group acquired last December.

Clayform said that in the first six months of this year, Schofield's achieved pre-tax profits of £463,000 against none in the same period of last year.

Clayform, which obtained a USM listing only six months ago, is offering one of its own shares and 200p in cash for each Owen Owen. That is worth about 440p a share on the basis of Clayform's Friday closing price of 240p.

However, Owen Owen shares closed on Friday well above that, at 490p, partly on speculation that Burton Group, the retailing group which recently acquired the Debenhams department store chain, might put in a rival hid.

Clayform said that its offer compared well with the 245p price of Owen Owen shares at the start of August, just before it bought an 11.6 per cent stake in the company.

Clayform said it considered that the trading approach taken by Owen Owen had been outdated for many years. Sales per square foot, profits per employee and returns on capital were all unacceptably low, particularly when compared with other retailing gronps.

It said that "due to Owen Owen's present inadequate returns," the acquisition would necessarily involve some short-term dilution of Clayform's earnings per share. But it was confident Owen Owen could, in due course, make a significant contribution to the enlarged group.

BOARD MEETINGS

TODAY

Interims:—Abbey Life, Barlows, Bestwood, Highland Distilleries, ISL, More O'Ferrall, Wettern Brothers.

Finals:—High-Point Services, Markheath Securities, Third Mile Investment.

FUTURE DATES

Interims:—

Assam-Dooars	Oct 23
Benlox	Oct 22
Boot (Henry)	Oct 25
Cater Allen	Nov 7
Clarke (Clement)	Oct 29
Ellis and Goldstein	Oct 31
Grand Central Investment	Oct 25
Norscot Hotels	Oct 24
Rush and Tompkins	Oct 28
Usher-Walker	Oct 28
Western Dooars Tea	Oct 23

Finals:—

Arbuthnot Government Securities Trust	Oct 24
Arbuthnot Japan Growth Fund	Oct 24
Gleeson (M. J.)	Nov 14
Lucas Industries	Nov 11
Rand Mines Properties	Oct 24
Smart (J.) (Contractors)	Oct 31

Jayplant profits up and trend continues

Despite a fall in turnover from £1.61m to £1.34m, pre-tax profits of Jayplant, plant hire contractor quoted on the USM, rose to £50,187 for the year ended May 31, 1985, compared with £39,116 previously.

The directors say that the satisfactory trend in profits continues. The depots of Shelbeach, located at Bristol and Yaxley, Peterborough, have now been closed and the savings attributable are reflected in the group's currently improved liquidity.

The directors continue to pursue every possible means of disposal of the freehold property at Yaxley in order to further reduce group borrowings and interest charges.
making operation of the Shelbeach depots should result in an improved profit performance during the coming financial year, they add.

Pre-tax figure for the year comprised the profits of £115,032 from the main hire business, non-recurring losses on closed depots of £59,351, property losses of £3,073, and parent company overheads of £1,421.

After tax of £492 (£7,801 credit) earnings per share are given as 1.4016p (1.3232p)

The directors point out that results for the six months to November 30, 1984, which showed profits of £66,000, did not take into account certain items of expenditure which had to be written off

FT Share Information

The following securities have been added to the Share Information Service:
Ericsson (L.M.) Telefonaktiebolaget) (Section: Electricals)
Israel (Jack L.) (Food, Groceries etc.)

Top board changes as Pavion profits advance to £1.7m

BY MARTIN DICKSON

PROFESSOR Roland Smith, chairman of the stores group House of Fraser, has been appointed non-executive chairman of Pavion International, the USM quoted cosmetics group. Mr Tom Whyte, the Bermuda-based financier and leading architect of the company's recent change of identity, is stepping down as deputy chairman and selling a substantial part of his shareholding.

Pavion — which was known until June as Sangers — coupled the news of these and other boardroom shareholding changes with results for the first half to August 31, showing pre-tax profits up to £1.72m on turnover of £26.7m, against £228,000 in the same period of last year on sales of £16.89m.

The increase was attributable largely to a first time contribution from Pavion—a U.S. manufacturer of down-market cosmetics, marketed under the Wet'n'Wild brand name. This was acquired for $24m (£21m) by Sangers in January in an unusual deal that included a nine-for-eight rights issue, the sale of £9m of convertible loan stock and a $350,000 salary for Mr Stanley Acker, Pavion's principal shareholder.

The deal with Pavion was largely the brainchild of Mr Whyte, who assumed in 1982 responsibility for changing the profile of the then loss-making Sangers group, whose main interest at the time was photographic wholesaling.

Pavion said Mr Whyte considered he had now fulfilled his role and leaving the board would give him more time to devote to his other interests.

He is selling some 4.3m of his shares. This will reduce his stake from about 22 per cent to 12.3 per cent. The total will be further reduced to under 5 per cent by the transfer of shares to certain non-beneficial trusts.

Professor Smith, who became a non-executive director of Pavion in August, replaces Mr John Briggs, who will remain as a non-executive director. Mr A. S. McCready, vice president (sales) for Pavion, has also joined the board. Mr P. B. Saul, a specialist in company reconstruction, is leaving the board.

Pavion also announced that a deferred consideration for the purchase of the cosmetics company—dependent on its profits record—had become payable and Pavion's vendors would receive 8.764m shares and $2.33m in cash.

The Pavion vendors are selling 4.3m of these shares, leaving Mr Acker with 9.9 per cent of the company. Kleinwort Benson is buying both these and Mr Whyte's shares and is giving Pavion's existing shareholders and loan stock holders the opportunity to buy 6.7m of them at a price of 60p a share, compared to Pavion's closing price on Friday of 74p.

The offer is one share for every nine held and five shares for every £18 of loan stock.

Pavion's vendors have been given an option to buy a further 1.887m of the shares at a price of 100p any time up to November 13 1987.

The first-half figures showed earnings per share of 3.1p (0.4p), or 2.5p (0.4p) when fully diluted by loan stock conversion.

Professor Smith said the cosmetics business had exceeded expectations and continued to grow through the acquisition of new customers. Sangers Photographics had suffered a very difficult trading period, largely due to the poor British summer.

Scottish Metro down slightly

Scottish Metropolitan Property, which holds properties for investment, achieved slightly lower taxable profits for the year ended August 15 1985 of £6.73m, compared with £6.77m. Gross rents receivable were over £1m higher at £8.73m against £7.66m.

After tax of £2.48m (£2.77m) earnings per 20p share are given as 4.38p (4.13p) while the final dividend is lifted to 2.3p (2.15p) taking the total payment to 4p compared with 3.75p. Net asset value per share was 112p at the year end, against 110p.

Pre-tax figure was after higher interest payable of £1.16m, compared with £631,511, and included income, down from £1.05m to £577,524. The allocation to the staff share ownership scheme amounted to £12,884 (£21,855), while income from the related company was £26,429, against £25,714.

The directors say the sale of the leasing subsidiary during the year gave rise to a write-back of deferred tax, which, after deducting the costs of disposal, amounted to £437,768. This was treated as an extraordinary item an added to the group's net hook worth.

FINANCIAL TIMES STOCK INDICES

	Oct. 18	Oct. 17	Oct. 16	Oct. 15	Oct. 14	Oct. 11	1985 High	1985 Low	Since Compilation High	Since Compilation Low
Government Secs.	84.57	84.33	84.20	84.20	84.16	84.14	84.27	76.08	127.4	49.18
Fixed Interest	90.28	90.32	90.06	90.06	89.91	90.09	90.28	82.17	150.4	50.53
Ordinary	1050.2	1043.5	1034.9	1023.2	1028.8	1027.5	1050.9	911.0	1050.2	49.4
Gold Mines	989.6	284.8	295.1	290.9	294.5	291.4	536.0	280.1	734.7	43.5
FT-Act All Share	652.75	650.81	646.86	643.00	643.71	642.75	652.75	581.88	652.75	61.92
FT-SE100	1341.8	1336.7	1326.2	1320.9	1321.1	1328.3	1341.2	1206.1	1342.4	986.9

LADBROKE INDEX
1,047-1,051 (+14)
Based on FT Index
Tel: 01-427 4411

Ealing Electro Optics offering 57% at 95p

BY LUCY KELLAWAY

The prospectus is published today for an offer for sale of shares in Ealing Electro Optics, which is being brought to the USM by J. Henry Schroder Wagg & Co. The company, which makes optical and electro optical equipment is valued at the 95p offer price at £9.5m.

The offer represents about 57 per cent of the equity, and will raise a total of £5.5m of which about £2.6m will be new money for the company.

Ealing Electro-Optics was founded in the 1860s as a manufacturer of microscopes. In 1968 it was acquired by the Ealing Corporation, a privately-owned U.S. company which, following the offer, will own 43 per cent of the shares.

The company, which employs 171 people, designs, makes and markets a wide range of optical equipment mainly for research and industrial use in the U.S. and the UK. Prices ranges from about £20 to about £65,000, and about two-thirds of sales by value are manufactured by the group in Watford.

Over the past five years, turnover has grown steadily from £2.6m in 1980 to £5.4m in 1984. After losses in the first two years, profits reached £908,000 in 1983, although last year they were slightly lower at £865,000. The company is forecasting profits for the current year of £1.2m, on which basis the shares are being offered on a price-earnings multiple of 10. The dividend yield is 3.3 per cent.

Application lists open on October 24 and dealings are expected to start on October 31.

comment

Ealing Electro-Optics is a curious mixture of high — and low — technology. It operates in the decidedly high-tech area where optics and electronics meet, and it brings out leading-edge products, of which Vidispec is an important example. Yet the company is heavily dependant on its catalogue for the bulk of its sales, and many of its products change very little from one year to the next. It emphasises development rather than research and its budget for this is relatively small. And with a history of more than 100 years it is not the sort of business that is about to double (or halve) overnight. This sounds as if it enjoys the best of both worlds—in a market that is expanding at about 20 per cent a year, it has the stability that some of the sector's younger and more research-oriented companies lack. However, the track is patchy at best, and requires some lengthy explanation. Luckily, such is to hand: the present bright young team of MBAs were not brought in until 1981, when they turned the company round quickly. Moreover, the downturn last year reflects mainly the buoyancy of the previous year and should not cause undue concern. Modestly priced on a prospective p/e of 10.

Share Stakes

CHANGES IN company share stakes announced over the past week include:

Astra Industrial Group—Director Mr W. E. M. Clegg, on September 25 purchased 75,000 ordinary shares at 7½p.

Associated Dairies Group—Director Mr D. Drew acquired 17,777 ordinary shares under the company's executive share option scheme at 58.063p and now holds 69,372 shares (0.0061 per cent). Director Mr E. Binns disposed of 50,000 ordinary for himself and 50,000 ordinary for his wife at 140p and he now holds 27,017 shares and his wife 25,950 shares.

Granville & Co. Limited

Member of The National Association of Security Dealers and Investment Managers

8 Lovat Lane London EC3R 8BP Telephone 01-621 1212

Over-the-Counter Market

Capitalisation £000's	Company	Price	Change on week	Gross div.(p)	Yield %	P/E Actual	P/E Fully taxed
4,475	Ass. Brit. Ind. Ord.	131	—	6.6	5.0	7.3	8.7
—	Ass. Brit. Ind. CULS	137	—	10.0	7.3	—	—
3,242	Airsprung Group	56	+1	6.4	11.4	9.3	12.2
1,125	Armitage and Rhodes	45	—	4.3	9.6	5.6	6.7
49,889	Bardon Hill	160	+3	4.0	2.5	20.3	21.0
3,135	Bray Technologies	57xd	−3	3.9	6.8	7.0	8.0
543	CCL Ordinary	155	—	12.0	7.7	3.8	3.6
1,300	CCL 11pc Conv. Pf.	104	—	15.7	15.1	—	—
7,560	Carborundum Ord.	126xd	−1	4.9	3.9	6.2	9.9
644	Carborundum 7.5pc Pf.	92	—	10.7	11.6	—	—
4,070	Deborah Services	52xd	+2	7.0	13.7	5.3	7.0
42,061	Frank Horsell	660	+5	1.4	0.2	15.3	20.6
—	Frank Horsell Pr.Ord.87	529	+5	11.9	2.2	12.5	16.6
3,034	Frederick Parker	21	—	—	—	—	—
1,458	George Blair	79	—	—	—	3.2	5.9
1,787	Ind. Precision Castings	44	+3	3.0	6.8	11.6	8.7
16,135	Isis Group	190	—	15.0	7.9	14.8	21.6
5,512	Jackson Group	106	−2	5.6	5.2	7.1	7.1
34,944	James Burrough	252	+4	15.0	8.0	7.6	7.9
3,224	James Burrough 9pc Pf.	94	—	12.9	13.7	—	—
8,066	John Howard and Co.	87	—	5.0	5.7	8.9	10.9
3,240	Linguaphone Ord.	160	—	—	—	6.5	6.9
—	Linguaphone 10.5pc Pf.	90	—	16.0	16.7	—	—
16,366	Minihouse Holding NV	570	—	6.9	1.2	24.9	23.7
806	Robert Jenkins	79	−1	—	—	10.3	22.6
1,260	Scruttons "A"	31	—	—	—	—	7.9
1,660	Torday and Carlisle	68	—	5.0	7.4	3.4	6.2
1,473	Trevian Holdings	320	—	4.3	1.3	18.2	17.9
6,495	Unilock Holdings	35	+2	2.1	6.4	8.5	8.3
14,101	Walter Alexander	110	—	8.6	7.7	6.2	7.6
4,714	W. S. Yeates	202	+2	17.4	8.6	6.7	9.9

Prices and details of services now available on Prestel, page 48146

RECENT ISSUES

EQUITIES

Issue price	Amount paid up	Latest Renunc. date	1985 High	1985 Low	Stock	Closing price	+ or −	Net Div.	Times covered	Gross yield	[illegible]
95	F.P.	7/11	103	97	AMS Inds. 5p	97	−1	b61.8	5.0	[illegible]	[illegible]
—	F.P.	9/10	7	6	Bardsey Pfd. Ord.	7	.....	—	—	[illegible]	[illegible]
—	F.P.	—	3	3	Do. warrants	3	.....	—	—	[illegible]	[illegible]
185	100	1/11	146	117	Britoil 10p	127	−1	t15.0	3.0	8.4	[illegible]
90§	F.P.	5/11	105	95	‡Colorgen Inc. $0.01	103	+3	—	—	[illegible]	[illegible]
125§	F.P.	8/11	135	130	‡C.P.N. 5p	130	.....	bg1.75	3.7	[illegible]	[illegible]
§88	F.P.	—	96	91	‡Cowells	92	.....	bg2.6	[illegible]	[illegible]	[illegible]
75§	F.P.	1/11	76	70	‡Electronic Data 5p	76	+2	bg1.5	4.3	[illegible]	[illegible]
120	F.P.	—	110	104	Fairbriar 10p	110	.....	bg4.0	2.7	[illegible]	[illegible]
§94	F.P.	30/10	98	78	‡InfraRed $0.10	90	+2	Q2.75c	—	[illegible]	[illegible]
§62	F.P.	5/11	63	50	‡Just Rubber 10p	59	.....	61.74	3.3	[illegible]	[illegible]
§79	F.P.	8/11	87	80	‡Kewill Systems 5p	82	.....	21.2	4.4	[illegible]	[illegible]
100	50	13/11	47	43	Nat. Home Loans 75p	45	.....	—	—	[illegible]	[illegible]
§180	F.P.	25/10	194	165	‡Questel 10p	180	.....	bg4.0	3.6	[illegible]	[illegible]
§96	F.P.	—	100	95	‡Radius 5p	93	.....	bg1.66	2.5	4.1	[illegible]
¶330	F.P.	1/11	405	343	St. Ive's 10p	400	−3	bg8.0	2.1	2.8	[illegible]
100	F.P.	—	99	97	Strata Invs.	98	.....	—	—	—	[illegible]
•	F.P.	—	20	10	Vantage Secs. Wrrnts	20	.....	—	—	—	[illegible]

FIXED INTEREST STOCKS

Issue price £	Amount paid up	Latest Renunc. date	1985 High	1985 Low	Stock	Closing price £	+ or −
87.305	£30	—	32¼	29⅝	Australia 2½% Ln. 2012	32¼	+¼
§91.443	£30	17/1	29⅝	27½	Bank of Greece 10¼%Ln. 2010	29⅝	+½
‖	Nil	—	17pm	10pm	Brit. Benzol 13% Conv. Uns. Ln. 1995	16pm	−1
§96.456	£25	27/11	28⅝	25⅝	Brixton Est. 10½% 1st. Mort. Deb. 2026	28⅝	[illegible]
§100	£10	—	10⅝	10⅛	EastbourneWater 11.3% RedDeb.2003/5	10⅝	[illegible]
§98.324	£40	3/12	44	40⅝	Est. & Gen. Inv.11¼%1stMort.Deb.2016	44	[illegible]
§97.617	£25	31/1	27½	25¾	Evans of Leeds 11% 1st.Mort.Deb. 2020	27½	+½
—	F.P.	—	101½	100¾	Hampton Tst. 11½% 1st Mtg Deb 2026	101½	[illegible]
98.466	£30	24/1	32⅝	29⅝	Intl. Bk. for Rec. & Dev. 0½% Ln. 2010	32⅝	[illegible]
§100	F.P.	—	110	84½	‡Memory Comp. 7.8% Cnv.R.Pf1994/6	110	[illegible]
100	£50	13/11	50	47⅝	Nat. Home Loans 8% Cnv. Uns.Ln. 2005	49	[illegible]
—	F.P.	—	100⅛	99⅞	Nationwide11⅞% Bds. 15/9/86	99⅞	[illegible]
—	F.P.	—	99⅞	99⅞	Do. 11⅝% Bds. 20/10/86	99⅞	[illegible]
••	F.P.	22/11	115	110	Pittard 9¼% Cu E. Pref.	115	[illegible]

RIGHTS OFFERS

Issue price	Amount paid up	Latest Renunc. date	1985 High	1985 Low	Stock	Closing price	+ or −
DM180	Nil	—	90pm	55pm	BASF A.G. DM 50	56½pm	[illegible]
11	F.P.	11/11	11¾	10½	Blacks Leisure 10p	10½	[illegible]
55	Nil	—	11pm	8pm	Brasway 10p	11pm	[illegible]
48	F.P.	22/11	55	67	Burns-Anderson 10p	51	[illegible]
95	F.P.	11/11	125	106	City Site Estates	125	[illegible]
60	Nil	29/11	22pm	15pm	Crowther (J)	16pm	[illegible]
165	F.P.	5/11	217	180	DRG	217	[illegible]
210	F.P.	29/11	260	246	Emess Lighting	248	[illegible]
5	Nil	30/10	12pm	3pm	Howard & Wyndham 5p	12pm	[illegible]
10	F.P.	12/11	11	10¼	‡Humberside Elect. 20p	11	[illegible]
225	Nil	6/12	76	56	ML Hldgs	65	[illegible]

For Greenfields Black see Blacks Leisure.

Renunciation date usually last day for dealing free of stamp duty. b Figures based on prospectus estimates. g Assumed dividend and yield. u Forecast dividend cover based on previous year's earnings. p Pence unless otherwise indicated. ¶ Issued by tender. ‖ Offered holders of ordinary shares as a "rights." ** Issued by way of capitalisation. §§ Reintroduced. ¶¶ Issued in connection with reorganisation merger or takeover. ||| Allotment letters or fully paid. ‖‖ Introduction. ‡ Unlisted Securities Market. § Placing price. ‡‡ Dealt in under Rule 535 (3). ♥ Dealt in under Rule 535 (4) (a).

PENDING DIVIDENDS

Dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. The dates shown are those of last year's announcements except where the forthcoming board meetings (indicated thus*) have been officially notified. Dividends to be declared will not necessarily be at the amounts in the column headed "Announcement last year."

Company	Date	Announcement last year
Aitken Hume	Oct 30	Interim 2.25
Akroyd and Smithers	Nov 20	Final 12.5
Amersham International	Nov 12	Interim 2.2
Associated Brit Foods	Nov 5	Interim 1.7
*Aust and NZ Bank	Nov 18	Final 15c
BCA	Oct 30	Final 1.8
Bank of Ireland	Nov 15	Interim 5.5
Boots	Nov 22	Interim 2.2
*Brit and Comwlth Shipping	Oct 24	Interim 1.8
Burton	Nov 13	Final 4.5
Charterhouse J. Rothschild	Nov 23	Interim 1.5
Chloride	Nov 13	Interim due
Common Bros	Nov 14	Final nil
*De La Rue	Nov 12	Interim 8.25
Electrocomponents	Oct 30	Interim 1.5
Extel	Nov 22	Interim 1.5
Ferguson Industrial	Nov 12	Interim 2.5
*Flight Refuelling	Oct 30	Interim 1.1
French Kier	Nov 22	Interim 1.55
GEI Intl	Nov 13	Interim 1.94
*Gerrard and National	Oct 23	Interim 3.0
Gill and Duffus	Oct 24	Interim 4.0
Gt Portland Estates	Nov 14	Interim 1.0
*Harris Queensway	Oct 22	Interim due
Heath (C. E.)	Nov 20	Interim 6.0
Henderson	Oct 30	Interim 2.25
Hepworth (J.)	Oct 30	Final 6.5
Hunting Gibson	Nov 12	Interim 2.0
Intl Signal	Nov 14	Interim 1o
Kwik Save	Nov 15	Final 2.8
LRC Intl	Nov 21	Interim 1.3
Land Securities	Nov 13	Interim 2.6
*London and Northern	Oct 23	Interim 1.25
*Lucas Inds	Nov 11	Final 6.0
*Marks and Spencer	Oct 29	Interim 1.06
*Metal Box	Nov 18	Interim 6.1
Powell Duffryn	Nov 22	Interim 5.0
Reed Intl	Oct 30	Interim 5.75
Sainsbury (J.)	Nov 6	Interim 1.4
Samuel Props	Oct 23	Final 4.0
Sketchley	Nov 21	Interim 4.3
Smiths Inds	Nov 14	Final 9.25
*Unigate	Nov 27	Interim 3.0
Valor	Nov 15	Interim 1.25
Wedgwood	Nov 23	Interim 2.75
Whitbread	Nov 21	Interim 2.00
*Wolseley-Hughes	Oct 22	Final 12.15

* Board meeting intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made. ¶ Forecast.

BUSINESSMAN'S DIARY

Anyone wishing to attend any of the above events is advised to telephone the organisers to ensure that there has been no change in the details published.

UK TRADE FAIRS AND EXHIBITIONS

Current
Motorfair '85 (01-439 0875) (until October 27) — **Earls Court**

October 21-25
International Business Show (01-405 6233) — **NEC, Birmingham**

October 22-24
International Products, Services and Technology for Financial Houses — BANKING (021-705 6707) — **Barbican Centre**

October 25-November 3
International Bike Show (01-385 1200) — **NEC, Birmingham**

October 29-November 1
Home Interiors Exhibition—London (01-385 1200) — **Olympia**

October 29-31
Cleaning and Maintenance Exhibition — EUROPACLEAN (0923 777000) — **Barbican Centre**

November 3-6
International Video and Communications Exhibition — IVAC (01-240 1871) — **Alexandra Pavilion, London**

November 5-7
Cellular Communications International Conference and Exhibition (01-868 4466) — **Wembley Conference Centre**

November 5-7
National Exhibition and Conference to Develop Profitable Exports (01-727 1929) — **Barbican Centre**

November 5-8
Accountants' Exhibition (01-995 8003) — **Barbican Centre**

November 10-14
International Furniture Show (021-780 4171) — **NEC, Birmingham**

November 24-30
International Building and Construction Exhibition — INTERBUILD (01-486 1951) — **NEC, Birmingham**

OVERSEAS TRADE FAIRS

Current
The 1985 International Capital Goods Trade Fair (Cleveland (216) 676 6000) (until October 27) — **Cleveland, Ohio**

Current
International Videocommunication Market Exhibition—VIDCOM (01-499 2317) (until October 24) — **Cannes**

October 29-31
International Videotex Conference and Exhibition—VIDEOTEX (01-868 4466) — **Amsterdam**

October 29-31
International Clothing Textiles Trade Fair—INTERSTOFF (01-734 0543) — **Frankfurt**

November 3-7
Petrochemicals, Chemical and Plestics Industries Exhibition and Conference — PETCHEMPLAST (01-486 3741) — **Al-Khobar**

November 5-8
International Fair of Hydraulics, Pneumatics, Industrial Robots and Automation — AUTOMAT ASIA (01-683 1158) — **Singapore**

November 12-16
Maritime Trade Fair — EUROPORT (01-437 2175) — **Amsterdam**

November 10-14
Arab Home Furnishing and Consumer Goods Show (01-486 1951) — **Bahrain**

November 12-17
Heating, Refrigerating and Air-Conditioning Exhibition—INTERCLIMA (01-439 3964) — **Paris**

November 20-24
International Food and Beverage Festival — FOODFEST (01-236 2399) — **Hong Kong**

November 24-28
International Hotel, Restaurant and Institutions Equipment Exhibition (021-705 6707) — **Brussels**

November 26-28
Computer Aided Design and Manufacturing Exhibition — CADCAM (01-437 2175) — **Amsterdam**

November 27-29
Energy Concepts for the Industry Convention and Exhibition — ENKON (01-930 7251) — **Nuremberg**

BUSINESS AND MANAGEMENT CONFERENCES

October 21-22
FT Conference: Electronic financial services (01-621 1355) — **Hotel Inter-Continental, W1**

October 23-25
International Economic Relations: Opportunities for West European countries in trade with Czechoslovakia and Hungary (03-955 4654) — **Prague**

October 24
Institute of Directors: How to increase your sales (01-839 1233) — **116 Pall Mall, SW1**

October 24-25
International Herald Tribune: Oil and money in the eighties (01-242 1242) — **Royal Garden Hotel, W8**

October 29-31
SUBTECH '85 "Designing for Intervention" (01-222 8658) — **Aberdeen Exhibition and Conference Centre**

October 30
RIBA: Options in retirement housing (01-580 5533) — **66 Portland Place, W1**

October 30-31
FT Conference: The third professional personal computer conference (01-621 1355) — **Inter-Continental Hotel, W1**

November 4-5
International Conference for the protection of people, products and property (0727 63213) — **Royal Garden Hotel, W8**

November 4-5
FT Conference: The SDI, Eureka and Industry (01-621 1355) — **Skinners' Hall, EC4**

November 6
CAET: Accounting, auditing and tax (01-242 6855) — **Post House, Reading**

November 7
Oyez IBC: The advertising agency of the future (01-236 4080) — **Cafe Royal, W1**

November 7-8
AECA: EEC/USA business development—the new opportunities (01-240 7725) — **Amsterdam**

November 12-13
FT/Venture Economics Conference: Venture capital in 1985 — the international outlook (01-621 1355) — **Geneva**

November 14-15
Oyez IBC: The global equity markat conference and exhibition (01-236 4080) — **London Marriott Hotel, W1**

November 18-19
FT Conference: Space: commercial benefits for industries worldwide (01-612 1355) — **Hotel Inter-Continental, W1**

November 20
Marketing Society Annual Conference (01-836 6801) — **Grosvenor House, W1**

November 21-22
Euromoney Conferences: Corporate Finance Conference (01-236 3288) — **Hotel Inter-Continental, W1**

November 26
Oracle Business Information: General insurance companies—a practical approach to VAT planning (01-727 3503) — **Gloucester Hotel, SW7**

November 26
Oyez IBC: UK onshore and offshore oil and gas—rearrangement of licence interests (01-236 4080) — **Portman Hotel, W1**

FINANCIAL DIARY FOR THE WEEK

The following is a record of the principal business and financial engagements during the week. The board meetings are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are interims or finals. The sub-divisions shown below are based mainly on last year's timetable.

TODAY

BOARD MEETINGS—
Finals:
High-Point Services
Markheath Securities
Third Mile Investment
Interims:
Abbey Life
Barlows
Bestwood
Highland Distillers
IBL
More O'Ferrall
Wettern Bros.

DIVIDEND & INTEREST PAYMENTS—
Bairstowe Eves 0.9p. Do. New 0.3p. Do. New 0.21405p. Do. New 0.45p
Blue Circle 6p
Church and Co. 2.5p
Costain 6.5p
DOT Group 1p
Electron House 1p
Fluor Corp. 10cts
IMI 2.2p
Johannesburg Cons. Invmnt. 675cts
KCA Drilling 1.5p
Lambert Howarth 1.5p
Lloread 1p
Mid Wynd Int'l Inv. Tst. 1.25p
Peerless 4.2p
Persimmon 1.75p
Polly Peck Intl. 1.5p
Trencherwood 1.5p
Ultramar 4p

TOMORROW

COMPANY MEETINGS—
Excalibur Jewellery, Birmingham Chamber of Commerce, Hagley Road, Birmingham, 11.30

BOARD MEETINGS—
Finals:
Baldwins (H.J.)
Klark-Teknik
Precious Metals Trust
Wolseley-Hughes
Interims:
Benlox
British & American Film
English National Investment
First Charlotte Assets Trust
Harris Queensway
Lee Cooper
Runciman (Walter)
Scottish Mortgage & Trust
Silentnight

DIVIDEND & INTEREST PAYMENTS—
Coronation Syndicate 2cts
Industrias Penoles Flrg Rate Nts 1989 $255.58
Johnstone's Paint 1.765p
Petrocon 2p
TR Pacific Basin Inv Tst 0.5p
Wilson (Connolly) 1.15p

WEDNESDAY OCTOBER 23

COMPANY MEETINGS—
Bogod-Pelepah, 52-54, High Holborn, WC, 12.00
Christie-Tyler, Brynmenyn, Bridgend, Mid-Glamorgan, 12.00
Fleet Holdings, London International Press Centre, New Street Square, EC, 12.00
Haynes Publishing, Four Acres Hotel, West Coker, Near Yeovil, Somerset, 12.00
Palmerston Inv Tst., Connaught Rooms, Great Queen Street, WC, 10.30
Stewart Plastics, Canford Works, Purley Way, Croydon, Surrey, 11.00

BOARD MEETINGS—
Finals:
McKechnie Bros.
Prestwick
Interims:
Ambrose Inv. Tst.
Assam-Dooars
Bromsgrove Inds.
Clive Discount
Etam
First Charlotte Assets Trust
French Connection
Gerrard & National
Lilley (F.J.C.)
London & Northern
Marlborough Property
Reo Estates
Securities Trust of Scotland
Western Dooars Tea

DIVIDEND & INTEREST PAYMENTS—
Camellia Inv 5p
Provident Financial 4p
Scottish Heritable Tst 1.4p
Stewart Plastics 1.8p
Svensk Exportkredit Flrg Rate Nts 1990 $442.5

THURSDAY OCTOBER 24

COMPANY MEETINGS—
Elbief, Prince of Wales Lane, Birmingham, 12.00
Estates Property, Armourers' Hall, 81, Coleman Street, EC, 12.00
Febel International, Hyde House, Hyde, Colindale, NW, 11.00
Forminster, Britannia Hotel, Grosvenor Square, W, 12.00
Mayhew Foods, Butcher Hall, Bartholomew Close, EC, 12.00
Neepsend, St George Hotel, Kenwood Road, Sheffield, 11.00
Sirdar, Cedar Court Hotel, Wakefield, 12.00

BOARD MEETINGS—
Finals:
Arbuthnot Govt. Secs. Tst.
Arbuthnot Japan Growth Fund
Goodman Bros.
Manganese Bronze
Walker & Homer
Interims:
Anchor Chemical
British & Commonwealth Shipping
Chrysalis
Hill (Philip) Inv. Tst.
Joseph (Leopold) Sterling Fund
Norfolk Hotels

DIVIDEND & INTEREST PAYMENTS—
Atlantic Assets Trust 0.55p
Boddingtons Breweries 1.33p
Automotive 3.6p
[illegible] 0.2p, A (Rest Vtg) 0.4p
Christie-Tyler 2p
Diploma 7p 2.45p
Dunton 0.24p
Federated Housing 1.1p
Fisher (James) & Sons 1.6p
Forminster 4p
Local Authority 11½pcBds 30/4/86 5.8125pc
Menzies (John) 5¼pc 1985-88 1.3774pc
Oesterreichische Kontrollbank Gtd Flrg Rate Dep Nts 1994 $26383.68
Palmerston Inv Tst 3p
Philippines (Rep of) Flrg Fix Rate Nts 1986 $731.93
Tweefontein United Collieries Efcts

FRIDAY OCTOBER 25

COMPANY MEETINGS—
Aerospace Engineering, Blunsdon House Hotel, Blunsdon, Swindon, Wiltshire 12.00
Burnett & Hallamshire, Cutlers Hall, Sheffield, 11.00
Don Brothers Buist, Royal Hotel, Forfar, Angus, 12.00
Goodhead Print, Chancer International Estate, Launton Road, Bicester, Oxon, 12.00
Tottenham Hotspur, Tottenham Hotspur Football Club N, 11.00
Whitworth Electric, Trevena House Hotel, Alton Road, Farnham, Surrey, 3.00

BOARD MEETINGS—
Finals:
British Assets Trust
Fitzwilton
Rand Mines Properties
Interims:
Root (Henry)
Brent Walker
Channel Tunnel Investments
Clayton, Son
Dwek
Grand Central Investment
Hopkinsons Hldgs.
Hunting Petroleum Services
Photax (London)
Polymark Intnl.
Prince of Wales Hotels
Toshiba Corp.
Upton (E.)

DIVIDEND & INTEREST PAYMENTS
Allied Irish Banks Sub Prim Cap Perp FRN $223.55
Bankers Trust New York Corp 57.5cts
Brandon & Cloud Hill Lime Works 3p
British Inv Tst 5pc 1985-88 2.5pc
Brook Street Bureau 1.5p
CBC Intl Efcts
Conversion 9½pc 2004 4.75pc
English & Scottish Investors 0.5p
Excalibur Jewellery 0.05p
Exchequer 11pc 1991 5.5pc
General Electric Co 55cts
Greenall 0.25p
Home Charm 1.2p
Ladbroke 5p
Lowe's 9cts
Lydenburg Platinum 44.5cts
Macdonald Martin Distilleries A (Lim Vtg Rts) 3p, B 1.5p
Manchester (Donald) 7¼pcLn 1989-94 3.675pc
Manchester (City of) 11.5pcRed 2007 5.75pc
Manufacturers Hanover 80cts
Marshall 0.7p
MCP Corp 22cts
NatWest Finance Gtd Flrg Rate Cap Nts 1992 $725.75
Nationwide Leisure 1.25p
Neepsend 0.1p
Newbold & Burton 1.54p
Raglan Property Tst 0.085p
Ratners 2.4p
Saul (B.F.) Real Estate 5cts
Saville Gordon (J.) 4.25p
Sedgwick 3.75p
Shires Inv 7.5p
Sintrom 0.75p
Tellos 1.4p
Tilbury 1.5p
Treasury 9½pc 1988 4.75pc, 10pcCnv 1990 5pc
Trinity Intl 4.2p
VG Instruments 0.7p

SATURDAY OCTOBER 26

DIVIDEND & INTEREST PAYMENTS—
Australia (Comm. of) 11¼pc 2015 5.5975pc
Elbief 1.238p

SUNDAY OCTOBER 27

DIVIDEND & INTEREST PAYMENTS—
Exchequer 13½pc 1994 6.75pc, 15pc 1997 7.5pc

PARLIAMENTARY DIARY

TODAY

Commons: Debate on industrial innovation and design on a motion for the adjournment. Second Reading of the Housing Bill, the Housing Association Bill, the Housing Consequential Provisions) Bill, and the Landlord and Tenant Bill. Proceedings on the Weights and Measures Bill. Private Business after 7 pm.

Lords: Debate on the report of tha European Communities Committee on European Union (14th Report, 1984-85). Debate on the Report of the European Communities Committee on the refnrm of the Common Agricultural Policy (17th Report, 1984-85).

TOMORROW

Commons: Remaining stages of the European Communities (Finance) Bill. Motion on the Rate Snpport Grant (Scotland) (No 3) Order.

Lords: Administratinn of Justice Bill, consideration of Commons amendments. Law Reform (*Miscellaneous Provisions*) Bill (Scotland), Third Reading. Oil and Pipelines Bill, Third Reading. United Nations (Namibia) Bill, Second Reading. Unstarred question on whether HMG will take the initiative towards securing securing international signature of the comprehensive ban on all nnclear tests as proposed in the preamble to the Non-Proliferation Treaty, and whether they will revitalise that treaty by discussing with the nuclear arms holding countries the substantial reduction of their nuclear arms.

WEDNESDAY

Commons: Opposition day — subject of debate to be announced. Motion on the Nursing Homes and Nursing Agencies (Northern Ireland) Order, and on the Parliamentary Constituencies (England) (Miscellaneous Changes) Order.

Lords: Insolvency Bill, consideration of Commons amendments. Motion to disapprove the Statement of Changes in Immigratinn Rules.

Select Committees: Trade and Industry—Subject: Tourism in the UK. Witnesses: Lord Young of Graffham, Employment Secretary, and Mr David Trippier, MP, Employment Under Secretary (Room 16, 10.30 am). Scottish Affairs—Subject: The proposed closure of the Gartcosh rolling mill. Witness: British Steel Corporation (Room 19, 2 pm). Environment—Subject: Radioactive waste. Witnesses: Hon William Waldegrave, MP, Minister of State for the Environment, and officials (Room 20, 4.30 pm).

THURSDAY

Commons: Debate on a motion to take note nf the outstanding reports of the Public Accounts Committee to which the Gnvernment has replied. Mntinn on the European Communities (Definition of Treaties) (North Atlantic Salmon Conservation Organisation) Order, and the European Communities (Immunities and Privileges of the North Atlantic Salmon Conservation Organisation) Order.

Lords: Transport Bill, third reading.

Select Committee: Agriculture—Subject: The storage and disposal of cereal surpluses. Witness: Ministry of Agriculture, Fisheries and Food) (Room 16, 11 am).

FRIDAY

Commons: Debata on alternative sources of energy, on a motion for tha adjournment of the House.

CONSTRUCTION CONTRACTS

£10m awards for Kyle Stewart

Contracts worth almost £10m for a superstore at Clapham Junction and luxury apartments in former Docklands warehouses, hava been awarded to **KYLE STEWART**. At Lavender Hill, Clapham Junction, work has started on a £5.5m contract for Charterhall Properties for a 10,000 sq metres "developer's shell" superstore. The structural steel frame building is due for completion within a year.

Former spice and grain warehouses at St Saviour's Dock, Bermondsey, are being converted to form 8 7luxury apartments of np to three bedrooms each, for Bovis Homes under a £4m contract. Work is due for completion in 1987. The six 19th and 20th century warehouse units will retain their original perimeter walls, which will be restored, but e complelely new reioforced concrete frame structure will be constructed inside on new foundations and tied-In tn facades. Car parking will be provided and design features of the project include constructinn nf a timber dockside wharf and walkway and use of original timbers and cast-iron columns as nart of the interior decor.

£7m Bristol development project

SIR ROBERT McALPINE & SONS has been awarded twn contracts totalling £7m by Prudential Assurance Company for work being carried out at Crihbs Causeway, Bristol. The first contract covers the infrastructure for a commercial/retail development on a 55-acre site. Work comprises more than 1000 metres of dual carriageway macadam roadworks inclnding two roundabouts, all service installations including mains drainage, tha culverting of a stream and the provision of car parks, pathways, etc. The second contract comprises the construction nf two single-storey steel portal framed buildings with floor areas nf 7,000 sq metres and 9,000 sq metres. The curved roof spans and side walls will be metal clad and the end walls will be finished with glass curtain walling. Wnrk has begun and completion of both contracts is due in June 1986.

Taylor Woodrow gains £6.9m orders

Contracts worth a total of £6.9m have been awarded to companies in the **TAYLOR WOODROW GROUP**. The largest, valued at £1.9m, has been placed by the National Biological Standards Board with Taylor Woodrow Construction for extra work on a new laboratories complex in the grounds of Clare Hall Hospital, South Mimms, Herts. The contract includes a biotechnology building, which is scheduled for completion in January, 1987.

Taylor Woodrow Construction has also won a £1.7m contract from Sealink Harbours to design and construct e deep water roll-on, roll-off berth to take vessels up to 15,000 tonnes dwt in Holyhead Harbour, North Wales. The facility, due for completion in May, 1986, is heing built on Salt Island, a promontory to the east end of the harbour.

Taylor Woodrow Construction has received a £970,000 order from Londnn Underground for the replacement of two passenger lifts at Borough Station, Southwark, London. Work is scheduled for completion in June, 1987.

Myton has been awarded two contracts, together worth £2.4m, for the refurbishment of a building to provide offices and the construction of shops. The larger project, valued at £1.3m, is for the redevelopment of Burdett House, Buckingham Street, and the adjoining Ynrk Buildings, London, WC2, for the Royal National Pension Fund for Nurses. The other order, worth £1.1m, has been placed hy CIN Properties and is due for completion in August, 1986. Work entails demolishing an existing building in High Road, Ilford, Essex, and building shops et ground level with two upper storeys providing storage space.

Mixed batch for Brims

BRIMS & CO has been awarded work valued at £7m. At HM Prison Acklington in Northumberland work has commenced on a new cell hlock, a £2m contract placed by the Home Office and at Newcastle Airport Brims is tn huild a £1m extension tn the Terminal Building. Cleveland County Council has placed en order worth over £800,000 fnr the erection of e home et Hartlepool for the elderly and physically handicapped. For Tyne & Wear County Council road improvements and environmental works are being undertaken at Blandford Street, Newcastle. In the South of England, Brims has been awarded contracts worth over £2.5m for the Army at Sandhurst Royal Military Academy and at HM naval bases near Portsmouth.

*

A contract, worth £1.27m, has heen secured by **M. HARRISON & CO (LEEDS)** to construct 50 dwellings, plus roads and sewers, at Ferrand Avenue, Bierley Estate, Bradford, for Bradford Metropolitan Council. Work is scheduled for completion early in 1987.

LONDON SHARE SERVICE

BRITISH FUNDS

"Shorts" (Lives up to Five Years)

Five to Fifteen Years

Over Fifteen Years

Undated

Index-Linked

INT. BANK AND O'SEAS GOVT STERLING ISSUES

CORPORATION LOANS

COMMONWEALTH & AFRICAN LOANS

LOANS

Building Societies

Public Board and Ind.

Financial

FOREIGN BONDS & RAILS

AMERICANS

AMERICANS—Cont.

Dividends Paid	Stock	Price £	Last xd	Div Gross	C'vr	Y'ld Gr's
F.My.Au.N.	Amer Medical Int $1	14¾xd	8.7	72c	—	3.6
Fb My Ag N	American T. & T. $1	14¼	26.3	$1.20	—	5.9
My Au N F	Ameritech $1	62¾	—	$6.00	—	6.9
—	Amdahl	15⅝	16.11	$1.44	—	6.5
—	♦AndTech‖	20½p	—	—	—	—
Fb My Au N	Bankamerica $1 9/16	973p	12.8	80c	—	5.9
Ap Jly Oc Jan	Bankers N.Y. $10	45¼xd	28.3	$2.70	—	4.5
Ja Oc Jy Oct	BASIX Corp.	508pxd	13.9	12c	—	1.7
My Au N Fb	Bell Atlantic $1	62	27.3	$6.80	—	7.9
Fb My Au N	Bellsouth $1	27¼	25.6	$2.80	—	7.4
Mar Jun S D	♦Beth Steel $8	15¼	4.11	40c	—	2.5
Oc Ja Ap Jy	Bowater Inc.	15½	4.9	72c	—	3.3
Ja Ap Jly O	Brown'g-Fer. 16⅔c	34¼xd	7.9	$1.08	—	2.2
F My Au N	Brunswick Corpn.‖	25⅝	22.7	$1.00	—	2.0
Jan Ap Jly O	CPC Intnl. 25c	34	25.9	$2.20	—	4.7
Mr Ju Se De	CSX Corp U.S.$1.00	18¼	21.5	$1.04	—	4.1
Mar. June S.D.	CalFed Inc $1.00	15¼	12.8	32c	—	1.5
Oc Ja Ap Jy	Campbell Soup 30c	31¼	3.7	[illegible]	—	11.5
F My Au N	Caterpillar Tractor‖	25xd	16.10	[illegible]	—	1.4
—	Cenergy Corp. 25c	666p	—	[illegible]	—	0.4
Fb.My.Ag.Nv.	Chase M'htn $12.5	39⅝xd	25.4	$3[illegible]	—	6.9
Ap Jy Oc Ja	Chemical New York	27⅝	12.3	$2.48	—	6.5
Mar Jun S D	Chesebrough-Pond's $1	26⅝xd	29.8	$1.92	—	5.1
Mar Jan S D	Chrysler $6¼	27¼	12.6	$1.00	—	2.6
My Au N F	Citicorp $4	30⅛	24.9	$2.26	—	5.4
—	CityFed Fin. Corp.	710p	—	40c	—	4.1
F My Au N	Colgate-P. $1	22¼	22.7	$1.40	—	4.5
Mr.Ja.Se.De.	Colt Inds. $1	41¼	10.9	$2.50	—	4.3
—	Cont Illinois Corp $1	525p	—	—	—	—
F May Au N	Cont Illinois Hldgs $1	56p	27.3	—	—	—
—	♦Corporate Data Scnce.	58p	—	—	—	—
Dec. Aug	Crown Zell. $5	28xd	5.6	$1.00	—	2.6
—	Cullinet Sftwr $0.1	10¼	—	—	—	—
—	Damson Oil 40c	263p	—	—	—	—
Mar Jun S D	Dana Corp. $1	16⅝xd	23.8	$1.20	—	5.5
—	Data General	26	—	—	—	—
—	♦Derma-Lock Medicl	20p	—	—	—	—
M J S D	Dun & Bradstreet $1	52⅝	15.8	$1.88	—	2.6
F My Au N	Eaton Corpn. 50c	38	1.5	$1.20	—	2.3
Mar Jer S D	♦Exxon‖	37¼	7.11	$3.40	—	6.5
MrJnSepDec	FPL Group $0.01	17¼	27.8	h$1.88	—	7.8
F May Au N	Fin. Corpn. Amer. 50c	421p	25.6	—	—	—

CANADIANS

BANKS, HP & LEASING

BEERS, WINES & SPIRITS

BUILDING, TIMBER, ROADS

BUILDING, TIMBER, ROADS—Cont.

Dividends Paid		Stock	Price	Last xd
Jan.	Aug.	BPB Inds. 50p	506	1.7
Feb.	Aug.	Baggeridge Brick	318	1.7
Jan.	June	Bailey (Ben) 10p	23	29.4
—		Baldwin (H. J.) 10p	40	11.80
May	Nov.	Barratt Dev. 10p	128	30.9
Jan.	July	Bellway	135	13.5
May	Oct.	Benford M. 10p	63	16.9
Feb.	Aug.	♦Berkeley Group	228	1.7
Mar.	Aug.	Bett Bros. 20p	72	15.7
June	Oct.	Blockleys 20p	890	16.9
Oct	July	Blue Circle £1	560	2.9
Oct.	May	Breedon Lime	240	16.9
Jan.	Aug.	Brickhouse Dudley 10p	69	1.7
Feb.	Oct.	BB & EA	150	12.8
May	Dec	British Dredging	69xd	14.10
Jan.	July	Brownlee	78	17.6
Nov.	May	Bryant Hldgs.	88	15.4
Aug.	Jan.	Burnett & Hallam	204	26.11
Jan.	July	Cakebread Rby. A 10p	50	3.6
Oct.	May	Cement-Roadstone	76	16.9
—		♦Chesconsumer Grp.	30	—
Oct.	May	Condor Group	68	2.9
October		Copson (F.) 5p	35	16.9
July	Oct.	Costain Group	488	16.9
Sept.	Apr.	Countryside Props	318	15.7
Oct.	April	Crouch (D.) 20p	106	16.9
Sept	Mar	Dew (George) 25p	90	29.7
October		Douglas (Robt. M)	72	17.9
—		♦Dutton Group 5p	19	16.9
May	Oct	♦EBC 50p	145	2.9
Dec.	June	Erith	60xd	14.10

For Exeter Bldg & Con see EBC

Dividends Paid		Stock	Price	Last xd
Dec	June	Feb. Intl. 10p	85	3.6
Dec	June	Do. 'A' 10p	58	3.6
Nov.	April	♦Federated Housing 5p.	48	2.9
Jan	Oct	Finlan (John) 10p	67	16.9

DRAPERY & STORES

DRAPERY & STORES—Cont.

ELECTRICALS

CHEMICALS, PLASTICS

ENGINEERING

ENGINEERING—Continued

FOOD, GROCERIES, ETC

HOTELS AND CATERERS

HOTELS—Continued

INDUSTRIALS (Miscel.)

INDUSTRIALS—Continued

INSURANCES

LEISURE

LEISURE—Continued

MOTORS, AIRCRAFT TRADES

Motors and Cycles

Commercial Vehicles

Components

Garages and Distributors

NEWSPAPERS, PUBLISHERS

PAPER, PRINTING, ADVERTISING

PROPERTY

PROPERTY—Continued

SHIPPING

SHOES AND LEATHER

SOUTH AFRICANS

TEXTILES

TOBACCOS

TRUSTS, FINANCE, LAND

Investment Trusts

INVESTMENT TRUSTS—Cont.

OIL AND GAS

Finance, Land, etc

FINANCE, LAND—Cont.

OVERSEAS TRADERS

PLANTATIONS

Rubbers, Palm Oil

Teas

MINES

Central Rand

Eastern Rand

Far West Rand

MINES—Continued

O.F.S.

Diamond and Platinum

Central African

Finance

Australians

Tins

Miscellaneous

—		♥Colby Res Corp.	58	—	—	—	—
Aug.	Feb.	Cons. Murch. 10c	270	25.7	Q86½c	3.9	8.4
—		♥Eonex Int. Ir10p	30	—	—	—	—
—		Greenwich Res	100	—	—	—	—
Apr	Oct	Hampton Areas 10p	130	29.7	3.75	0.9	3.9
—		♥Highwood Res	160	—	—	—	—
May	Aug	Homestake Mining $1	£17¼	22.5	Q20c	—	0.8
—		♥McFinley Red Lake	230	—	—	—	—
—		♥Mosto Explorations	240	—	—	—	—
—		♥New Sabee Res C$1	43	—	—	—	—
—		Northgate C$1	195	♥77	—	—	—
Jan.	July	RTZ	545	13.5	†20.0	2.8	5.3
Jan	July	Do. ♥₁pcLn '95-2000	£124½	13.5	Q9½%	14.0	†7.8
—		♥Tara Expln $1	940	—	—	—	—

NOTES

Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures. P/Es are calculated on "net" distribution basis, earnings per share being computed on profit after taxation and unrelieved ACT where applicable; bracketed figures indicate 10 per cent or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution, this compares gross dividend costs to profit after taxation, excluding exceptional profits/losses but including estimated extent of offsettable ACT. Yields are based on middle prices, are gross, adjusted to ACT of 30 per cent and allow for value of declared distribution and rights.

- ● "Tap Stock".
- * Highs and Lows marked thus have been adjusted to allow for rights issues for cash.
- † Interim since increased or resumed.
- ‡ Interim since reduced, passed or deferred.
- ‡‡ Tax-free to non-residents on application.
- ♦ Figures or report awaited.
- ♥ Not officially UK listed; dealings permitted under Rule 535(4)(a).
- ☆ USM; not listed on Stock Exchange and company not subjected to same degree of regulation as listed securities.
- †† Dealt in under Rule 535(3).
- ¢ Price at time of suspension.
- ¶ Indicated dividend after pending scrip and/or rights issue: cover relates to previous dividend or forecast.
- ♦ Merger bid or reorganisation in progress.
- ‡ Not comparable.
- ♠ Same interim: reduced final and/or reduced earnings indicated.
- § Forecast dividend; cover on earnings updated by latest interim statement.
- ‡ Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.
- ☆ Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.
- ‖ No par value.

B.Fr. Belgian Francs. Fr. French Francs. ‡‡ Yield based on assumption Treasury Bill Rate stays unchanged until maturity of stock. a Tax free. b Figures based on prospectus or other offer estimate. c Cents. d Dividend rate paid or payable on part of capital, cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending. q Earnings based on preliminary figures. s Dividend and yield exclude a special payment. t Indicated dividend: cover relates to previous dividend, P/E ratio based on latest annual earnings. u Forecast dividend: cover based on previous year's earnings. v Subject to local tax. x Dividend cover in excess of 100 times. y Dividend and yield based on merger terms. z Dividend and yield include a special payment: Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. E Minimum tender price. F Dividend and yield based on prospectus or other official estimates for 1984-85. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1984. K Figures based on prospectus or official estimates for 1984. M Dividend and yield based on prospectus or other official estimates for 1985-86. N Dividend and yield based on prospectus or other official estimates for 1985. P Figures based on prospectus or other official estimates for 1983. Q Gross. T Figures assumed. Z Dividend total to date.

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xd ex capital distribution.

REGIONAL & IRISH STOCKS

The following is a selection of Regional and Irish stocks, the latter being quoted in Irish currency.

Albany Inv 20p	98	.....	Arnotts	285	.....
Craig & Rose £1	700	.....	CPI Hldgs	62	.....
Finlay Pkg. 5p	34	.....	Carrol Inds.	140	+5
Higsons Brew	125	.....	Dublin Gas	77	.....
Holt (Jos) 25p	715xd	.....	Hall (R. & H.)	59	.....
IoM Stm. £1	87	.....	Heiton Hldgs.	22	−2
IRISH			Irish Ropes	45	.....
Fund 11¾% 1988	£101½	.....	Unidare	108	.....
Nat. 9¾% 84/89	£97¾	.....	For Jacob (W. & R.) see Foods		
Fin. 13% 97/02	£108¼	.....			

"Recent Issues" and "Rights" Page 20
(International Edition Page 24)

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £800 per annum for each security.

INTERNATIONAL APPOINTMENTS

Hebbering makes move from Horten to Karstadt

BY RUPERT CORNWELL IN BONN

HERR BERND HEBBERING, the 44-year-old chief executive of Horten AG, the West German retail chain, is moving across to Karstadt, in a move which will significantly strengthen the top management of Karstadt, the troubled store group, which is the largest in West Germany.

After several weeks of speculation, confirmation came from Karstadt last week that Herr Hebbering, who is widely credited with having led the recovery at Horten, the German retailing subsidiary of Britain's BAT concern, will be making the short trip from Düsseldorf to Essen, where Karstadt is headquartered.

Herr Hebbering's job, which will be ratified by the Karstadt supervisory board next Monday, is as deputy chief executive, flanking Herr Walter Deuss, 51, the current chairman of Karstadt's managing board.

His appointment means a return after a 12-year interval to Karstadt, where the mood is anything but the cheerful one which marked the boom years of the early 1970s. Thanks to flat retail sales in West Germany, and the enduring difficulties of the Neckermann mail order subsidiary, Karstadt group profits plummetted to DM 23.9m ($9m) in 1984, from DM 90.4m the year before. In the first six months of this year sales slipped 4 per cent, to DM 4.05bn.

All this, not surprisingly, has led to speculation that Herr Hebbering, with his reputation as a determined and effective cost-cutter, may be poised to take over the reins from Herr Deuss, should Karstadt's fortunes not show an improvement soon.

For the time being, Karstadt is saying only that Herr Hebbering will be in charge of textile purchasing and "other stock and eales-related assignments." But these could well include — apart from Neckermann — the problem of NUR Touristic, Karstadt's travel agency division—which last month was refused permission by the Federal Cartel Office to merge with its opposite number at Kaufhof, the second largest German store concern.

In the meantime, Herr Deuss is under pressure from his shareholders to straighten things out—as an angry annual meeting in Essen last July showed all too clearly. Between 1977 and 1984, Neckermann piled up losses of DM 460m, and Herr Deuss has provided no prediction of when the company might return to the black.

Instead he has promised, and set in motion, a radical overhaul of Karstadt'e operation, aimed at sprucing np its somewhat rusty image, and rationalising its sales lines.

Lead job at O&Y for Cohen

By Bernard Simon in Toronto

MR MARSHALL COHEN, until recently the most senior civil servant in Canada's Department of Finance, has been appointed president and chief operating officer of Olympia and New York Enterprises, a subsidiary of Olympia and York, the Toronto-based property development group.

O and Y Enterprises has been formed as n holding company overseeing the energy group Gulf Canada, which O and Y acquired two months ago. In a reorganisation subsequent to the takeover, Gulf bought the controlling interest in the newsprint and forest products company Abitibi-Price previously held directly by O and Y. O and Y Enterprises controls assets of around C$8bn (US$5.8bn).

Mr Cohen, aged 50, was one of Ottawa's most respected and influential civil servants during his three-year tenure as Deputy Minister of Finance and, previously as Deputy Minister of Energy. He practised as a tax lawyer in Toronto before joining the Civil Service in 1970.

He gave a rare interview to a Toronto newspaper this week, stressing that he played no part as Deputy Minister of Finance in Government decisions relating to O and Y's acquisition of Gulf from Chevron Corporation of San Francisco. The Government involvement included a controversial tax ruling in favour of Gulf Canada.

Mr Cohen said he had turned away approaches from some of Canada's large banks, preferring to work for O and Y because: "I wanted a more entrepreneurial experience." O and Y is a private company controlled by the Reichmann family.

Promotions at ITT Europe

DR RONALD E. CASEY and Mr Michael F. Gambello have been elected vice-presidents of ITT Europe, the offshoot of the diversified U.S. telecommunications group.

Dr Casey retains his present post as director personnel, ITT Europe, which be bas beld since 1970. He joined ITT in the personnel department in the New York headquarters in 1964.

Mr Gambello bas been director of industrial and employee relations, ITT Europe. Prior to joining the Brussels staff in 1975, he held various staff positions in personnel and industrial relations in the New York headquarters, responsible for Latin America and ITT divisions in North America.

*

COLUMBIA PICTURES Industries named Mr Peter S. Sealey, the former marketing executive of its parent, Coca-Cola Company, as president of the movie studio's U.S. marketing and distribution group, reports AP-DJ from New York.

Mr Sealey had transferred to Columbia from bis post as manager of Coca-Cola's worldwide marketing operations soon after the soft-drink giant acquired the movie studio in 1982.

Clarke goes ahead in reshuffle at PG&E

BY WILLIAM HALL IN NEW YORK

MR RICHARD A. CLARKE is to take over as chairman and chief executive of Pacific Gas and Electric (PG and E), as pert of a major management reshuffle of the top of America's biggest gas and electric utility.

Mr Clarke, a 55-year-old lawyer, will succeed Mr Frederick W. Mielke, the present chairman, who will retire at the end of April. This appointment is the most important of several management changes announced by the San Francisco-based utility last week.

Mr Barton W. Shackleford, the company's president retires at the end of this month and Mr Clarke will temporarily take that job, until he assumes the chief executive's role next spring, at which time he will band over to Mr George A. Maneatis, aged 58, who is currently executive vice president for facilities and resources development.

The third member of the new management team will be Mr Stanley T. Skinner, aged 48, who will become vice chairman on May 1. Mr Skinner is currently chief financial officer of PG and E.

Mr Clarke, a native of San Francisco, joined PG and E's law department in 1955. After leaving the company to practice law privately he rejoined the utility in 1969, and became assistant general counsel in 1974. Since 1982, be has been general manager of PG and E's utility operations, and has had overall responsibility for supplying 3.7m electricity customers and 3m natural gas customers.

Mr Maneatis joined the company in 1953, after graduating in electrical engineering et Stanford University. Mr Skinner, an economics graduate who bails from Arkansas, joined the company in 1964. He was appointed treasurer ten years later.

In the 12 months to end September PG and E had sales of $8.5bn and net income of $1.0bn. The group earned $2.71 per share and paid dividends of $1.78 per share. Its main challenge in the coming years is to win sufficient rate increases to cover the costs of its $5.6bn Diablo Canyon nuclear power project.

Burroughs NZ post

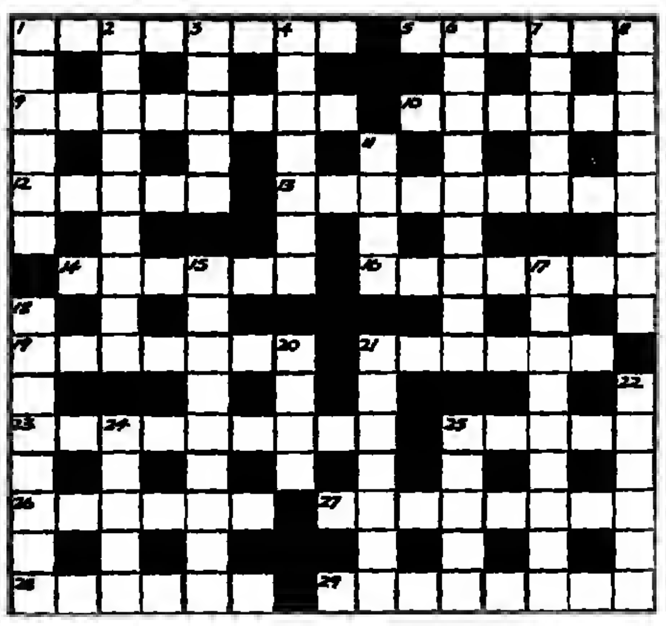
By Dai Hayward in Wellington

Mr BRIAN CLARK has been appointed general manager of Burroughs New Zealand, the offshoot of the U.S. business equipment concern.

For the past two years, Mr Clark has been in Burroughs' headquarters at Detroit, responsible for the Americas/Pacific region.

Mr Clark, a New Zealander, has been with the company for 19 years.

F.T. CROSSWORD PUZZLE No. 5,852



ACROSS

1 Gamble on mine product, for example (8)
5 Conversion is done by inventor (6)
9 It's your go (8)
10 Girl carries on in Juliet's place (6)
12 Approaches a saner distribution (6)
13 Resort of rash Scots (9)
14 Artless member trapped in web of lies (6)
16 Its quarters are hardly spotless (7)
19 One way to keep the dirt down (5, 2)
21 Nigel's one and only composition (6)
23 Poor relations living in China, for example (9)
25 Lift up beams, we hear (5)
26 A revolutionary wall-painting that sounds a warning note (6)
27 Recollected and telephoned somebody (6, 2)
28 Sex and art production films may use them (6)
29 Agitated prude and the kind of statue that agitates him (8)

DOWN

1 He's learned to keep a vehicle in the street (6)
2 Return to the country, the scene of the crime (9)
3 Does nothing to correct the slide (5)
4 Give one the right name? (7)
6 Rebuke don from top to toe (5, 4)
7 Part of it turns to ice, a good bearer (5)
8 Edge to the left when travelling in Britain (4-4)
11 Smoking brotherhood (4)
15 Revised plan in use for a land project (9)
17 Everyone bound to be properly organised (3, 4, 2)
18 Royalty's own touch of honour (8)
20 Freedom of movement on the stage (4)
21 Support us in shame (7)
22 Barked shrilly or deeply when disturbed (6)
24 It holds Peter up as unsuitable (5)
25 A master of many subjects (5)

The solution to last Saturday's prize puzzle will be published with names of winners next Saturday.

THIS NOTICE DOES NOT CONSTITUTE AN OFFER FOR SALE AND THE STOCKS LISTED BELOW ARE NOT AVAILABLE FOR PURCHASE DIRECT FROM THE BANK OF ENGLAND.

ISSUES OF GOVERNMENT STOCK

The Bank of England announces that Her Majesty's Treasury has created on 18th October 1985, and bas issued to the Bank, additional amounts as indicated of each of the Stock listed below:

£200 million 9½ per cent. TREASURY LOAN, 1999

£400 million 9½ per cent. CONVERSION STOCK 2005

The price paid by the Bank on issue was in each case the middle market closing price of the relevant Stock on 18th October 1985 as certified by the Government Broker.

In addition, Her Majesty's Treasury bas created on 18th October 1985, and bas issued to the National Debt Commissioners for pnblic funds under their management, an additional amount of £100 million of 11 per cent Exchequer Stock, 1989.

In each case, the amount issued on 18th October 1985 represents a further tranche of the relevant Stock, ranking in all respects *pari passu* with that Stock and subject to the terms and conditions of its prospectus (save as to the particulars therein which related solely to the initial sale of the Stock), and subject also to the provision contained in the final paragraph of this notice; the current provisions for Capital Gains Tax are described below. Applicetion bas been made to the Council of The Stock Exchange for each further tranche of stock to be admitted to the Official List.

Copies of the prospectus for 9½ per cent Treasury Loan, 1999 dated 12th January 1973 and of the prospectus dated 27th April 1984 for 9½ per cent Treasury Convertible Stock, 1989 (which contained the terms of issue of 9½ per cent Conversion Stock, 2005) may be obtained at the Bank of Englaod, New Issues, Watling Street, London EC4M 9AA. The Stocks are repayable at par, and interest is payable half-yearly, on the dates shown below:

Stock	*Redemption date*	*Interest payment dates*
9½ per cent		15th January
Treasury Loan, 1999	15th January 1999	15th July
9½ per cent		18th April
Conversion Stock, 2005	18th April 2005	18th October

Each further tranche of etock issued on 18th October 1985 will rank for a full six months' interest on the next interest payment date applicable to the relevant Stock. Official dealings in the Stocks on The Stock Exchange are expected to commence on Monday, 21st October 1985.

Each of the Stocks referred to in this notice is specified under paragraph 1 of Schedule 2 to the Capital Gains Tax Act 1979 as a gilt-edged security (under current legislatioo exempt from tax on capital gains on disposals made on or after 2nd July 1986, irrespective of the period for which the Stock is beld).

Government statement
Attention is drawn to the statement issued by Her Majesty's Treasury on 29th May 1985 which explained that, in the interest of the orderly conduct of fiscal policy, neither Her Majesty's Government nor the Bank of England or their respective servants or agents undertake to disclose tax changes decided on but not yet annouoced, even where they may specifically affect the terms on which, or the conditions under which, these further tranches of stock are issued or sold by or on behalf of the Government or the Bank; that no responsibility can therefore be accepted for any omission to make such disclosure; and that such omissioo shall neither render any transaction liable to be set aside nor give rise to any claim for compensation.

BANK OF ENGLAND
LONDON 18th October 1985

FT UNIT TRUST INFORMATION SERVICE

AUTHORISED UNIT TRUSTS

[illegible]

CONTINUED OVERLEAF

AUTHORISED UNIT TRUSTS & INSURANCES

Oppenheimer Fund Mngt Ltd.
66 Cannon St, London EC4N 6AE. Dlg. 01-236 3885

International Growth	91.6	96.5	+0.8	2.00
Income & Growth	42.9	45.4	—	3.20
Special Situations	51.2	54.5	+0.4	1.40
American Growth	26.1	27.9	+0.2	1.10
Japan Growth	33.5	35.7	-0.2	—
European Growth	40.1	42.8	+1.1	3.30
UK Growth	39.9	42.6	-0.1	—
Pacific Growth	32.0	34.2	—	1.80
High Income	28.1	30.0	+0.1	7.40
Practical Income Units	41.3	44.0	+0.1	3.1
Practical Accum. Units	74.3	79.1	+0.3	3.1

Pearl Trust Managers Ltd. (a)(g)
252, High Holborn, WC1V 7EB. 01-405 8441

Pearl Growth Fd.	65.0	69.1	—	3.16
Accum Units	96.1	102.2	+0.1	3.16
Pearl Inc.	91.8	97.7	+0.3	5.35
Pearl Unit Tst.	97.0	103.3	+0.4	3.98
(Accum. Units)	164.0	174.5	+0.7	3.98

Perpetual Unit Trust Mngmt. (a)
48, Hart Street, Henley on Thames. 0491 576868

Growth	192.9	207.0	—	1.85
Income	145.8	156.2	—	5.39
Worldwide Recovery	106.4	114.2	+0.2	2.71
American Growth	53.2	57.1	-0.3	1.12
Intl. Emerging Cos.	58.9	63.2	+0.2	0.75
Far East Growth Fd.	49.7	53.3	-0.1	1.0

Prolific Unit Trusts
222, Bishopsgate, EC2. 01-247 7544/7

Prolific Far East	108.0	115.7	-1.0	0.19
Prolific Extra Inc.	64.4	68.5	—	3.79
Prolific Gilt Cap.	84.4	87.8	+0.1	3.13
Prolific High Inc.	139.7	148.6	+0.3	4.98
Prolific Intl.	93.3	99.2	-0.3	1.98
Prolific N. Amer.	109.6	117.4	-0.5	2.36
Prolific Spec. Sits.	150.6	160.3	-0.4	1.52
Prolific Technology	95.9	102.7	-0.3	0.79

Providence Capital Fd. Mgrs. Ltd.
30 Uxbridge Road, London, W12 8PG. 01-749 9111

Japan Inc.	52.7	55.8	-0.3	—
Japan Acc.	52.8	55.9	-0.3	—
Worldwide Inc.	50.0	53.0	+0.3	2.40
Worldwide Acc.	50.3	53.3	+0.3	2.40
European Trust	57.0	60.4	+0.3	1.35
North American	46.2	48.9	-0.3	2.41
UK Equity	53.2	56.3	+0.3	3.80

Prudential Unit Trust Mngrs Ltd. (a) (b) (c)
51-69, Ilford Hill, Ilford, Essex, IG1 2DL 01-478 3377

Holborn Equity Tst.	328.5	349.4	+1.3	3.79
Holborn European Trust	49.3	52.4	+0.2	1.08
Holborn Gilt Tst.	139.1	144.3	+0.3	8.57
Holborn High Inc.	57.5	61.1	+0.2	7.39
Holborn Intl Growth	64.2	68.2	-0.5	0.48
Holborn Japanese Trust	50.8	54.0	-0.5	0.06
Holborn N. Amer. Trust	49.3	52.4	+0.2	2.27
Holborn UK Growth	65.8	70.0	+0.4	2.99

Quilter Management Co. Ltd.
31-45 Gresham Street, EC2. 01-600 4177

Quadrant Gen. Fd.	331.6	352.8	+6.1	3.58
Quadrant Income	188.9	201.0	+3.8	5.43
Quadrant Intl. Fund	292.9	308.0	—	1.56
Quadrant Recovery	202.6	214.9	+2.0	2.67

Reed Stenhouse Inv Services Ltd
145 Borough High St, Ldn SE1 1NV 01-628 6011

Wellington Inc.	52.9	56.3	—	6.00
Wellington Growth	109.6	116.6	—	2.40

Reliance Unit Mgrs. Ltd.
Reliance Hse, Tunbridge Wells, Kent. 0892 22271

British Life	134.3	144.5	-0.2	4.16
Reliance Unit Tst (Inc)	86.9	92.9	+0.3	4.12
Reliance Ut Tst (Acc)	114.0	121.8	+0.3	4.12

Ridgefield Management Ltd.
35 Fountain St, Manchester M2 2AF. 061-236 5685

Income UT	95.7	102.3	—	6.41
International UT	89.6	94.3	—	1.00

N.M. Rothschild Asset Management
St Swithin's Lane, London EC4. 01-280 5456

NC America (Inc)	217.2	229.6	—	1.44
NC America (Acc)	232.7	246.0	+0.7	1.44
NC Engy Res. Tst.	152.6	160.8	-0.5	2.46
NC Inc Fd.	73.2	77.0	+0.5	4.58
NC Japan Fund	114.7	120.7	-0.9	0.02
NC Smaller Cos	112.2	118.1	+0.4	2.00
NC Smaller European	109.1	114.8	+0.3	0.78
NC Ex Gilt Tst Oct 1	£120.00	£125	—	7.0
NC American Prop*	$11.21	11.80	—	—
NC Prop.*	179.1	196.8	—	—

*Unauthorised Unit Trusts.

Swiss Life Pen. Tst. Mgs. Co. Ltd./a)(c)
99-101 London Rd, Sevenoaks. 0732 450161

Equity Dist.*	219.9	232.6	—	4.07
Equity Acc.*	261.0	276.1	—	4.07
Fixed Int. Dist.†	119.6	123.9	—	10.91
Fixed Int. Acc.†	168.8	174.9	—	10.91

*Prices on Oct 9. Next dealing Nov 13.
†Prices on Oct 2. Next dealing Nov 6.

TSB Unit Trusts (b) (c) (y)
PO Box 3, Keens Hse, Andover, Hants, SP10 1PG
0264 62188. Dealings to 0264 63432-3

TSB American	89.7	[illegible]	[illegible]	1.36
Do. Accum.	93.4	[illegible]	[illegible]	1.36
TSB Extra Income	86.5	[illegible]	[illegible]	6.32
Do. Accum.	99.4	[illegible]	[illegible]	6.32
TSB General	124.3	[illegible]	[illegible]	3.32
Do. Accum.	201.3	[illegible]	[illegible]	3.32
TSB Gilt & Fxd Int.	47.2	[illegible]	[illegible]	9.32
Do. Accum.	59.3	[illegible]	[illegible]	9.32
TSB Income	172.5	[illegible]	[illegible]	4.88
Do. Accum.	260.2	[illegible]	[illegible]	4.88
TSB Pacific	106.6	[illegible]	[illegible]	0.71
Do. Accum.	109.4	[illegible]	[illegible]	0.71
TSB International	231.6	[illegible]	[illegible]	2.03
Do. Accum.	284.1	[illegible]	[illegible]	2.03
TSB Natural Resources	42.9	[illegible]	[illegible]	2.16
Do. Accum.	43.8	[illegible]	[illegible]	2.16
TSB Sletd. Opps.	47.8	[illegible]	[illegible]	2.23
Do. Accum.	52.1	[illegible]	[illegible]	2.23

3i & Target Fund Mgrs Ltd
2 St Mary Axe, London EC3A 8BP 01-928 7822

Small Co's Fund	65.9	70.4	—	0.10

Target Trust Mngrs. Ltd. (a)(g)
Target Hse, Gatehse. Rd, Aylesbury Bks (0296) 5941

American Eagle	48.2	[illegible]	—	0.62
Australia	31.9	[illegible]	-0.3	0.10
Commodity	80.6	[illegible]	—	1.93
Energy	37.3	[illegible]	—	2.31
Equity	105.1	[illegible]	+0.2	3.51
European Spec. Sits.	40.7	[illegible]	+0.6	1.21
Extra Income	43.0	[illegible]	—	7.22
Financial	210.9	[illegible]	+1.0	2.42
Gilt Capital	227.7	[illegible]	+0.7	3.25
Gilt Income	102.2	[illegible]	+0.3	8.34
Gold Income	55.0	[illegible]	-0.2	1.44
Gold Acc.	100.2	[illegible]	-0.4	1.44
Income	65.3	[illegible]	+0.4	5.90
Japan	49.3	[illegible]	-0.3	0.10
Malaysia & Singapore	22.9	[illegible]	+0.3	0.92
Pacific Income	48.7	[illegible]	-0.4	0.40
Pacific Re Inv.	78.0	[illegible]	-0.5	0.40
Preference Share	16.0	[illegible]	—	10.10
Special Sits.	78.5	[illegible]	—	1.08
Technology	76.6	[illegible]	—	0.10
UK Capital	52.4	[illegible]	—	1.9
U.S. Special Govt.	46.6	[illegible]	—	6.44
Worldwide Capital	112.7	[illegible]	+0.4	2.06
Equity Exempt Oct 9	543.8	[illegible]	—	2.33
Equity Ex Acc Oct 9	1,203.4	[illegible]	—	2.33

Temple Bar Unit Tst Mngrs Ltd see under Guinness Mahon

Touche, Remnant Unit Trust Magt. Ltd.
Mermaid Hse, 2 Puddle Dock, EC4. 01-248 1250

TR American Growth	26.4	28.4	+0.1	0.47
TR General Growth	42.5	45.7	—	3.20
TR Global Tech.	27.4	29.5	-0.1	0.10
TR Income Growth	47.6	51.2	+0.1	5.01
TR Income Monthly	40.4	43.4	—	7.35
TR Japan Growth	—	25.0	—	0.18
TR Overseas Growth	31.1	33.1	-0.1	1.71
TR Smaller Cos.	44.9	47.9	—	2.22
TR Special Ops	47.7	51.4	+0.1	2.00

Trades Union Unit Trust Managers
100, Wood Street, EC2. 01-628 8011

TUUT Sept. 1	130.8	137.7	—	3.93

Transatlantic and Gen. Secs. (c) (y)
91-99, New London Rd., Chelmsford. 0245-51651

Colmeco Oct 16	365.9	381.2	+9.5	4.16
(Accum. Units)	593.5	621.7	+15.5	4.16
Fielding Fd Oct 3	199.3	209.8	—	3.77
(Accum. Units)	218.2	229.7	—	3.77
Fielding Inc Oct 3	139.1	149.2	—	5.60
Fielding Am&Gen Oct 3	188.6	198.6	—	1.56
(Accum. Units)	212.0	223.2	—	1.56
S&W American Oct 16	123.5	129.9	—	1.86
S&W Smlr Secs Oct 16	96.4	101.5	—	0.92

Tyndall Managers Ltd.(a)(b)(c)

INSURANCES

INSURANCE, OVERSEAS & MONEY FUNDS

OFFSHORE AND OVERSEAS

World Fund S.A.
2 Boulevard Royal, Luxembourg

World Fund NAV	$12.79	+0.13	—

World Wide Growth Management
10a, Boulevard Royal, Luxembourg

Worldwide Gth Fd.	$13.48		—

Inv. Adv.: M. & G. Inv. Mngt. Ltd. London.

Yamaichi Dynamic Mngt Co SA
10A Boulevard Royal, Luxembourg

Advanced Tech	$10.57		—
Dynamic Gwth Fd.	$9.61		—

Money Market Trust Funds

	Gross	Net	Gr Equiv CAR	Int Cr
The Charities Deposit Fund 77 London Wall, London EC2N 1DB			01-588 1815	
Deposit	11.25		—	3-mth
The Money Market Trust 63 Gr Victoria St, EC4N 4ST.			01-236 0952	
Call Fnd	11.59	8.51	12.09	Smth
7-day Fnd	11.56	8.64	12.44	Smth
Oppenheimer Money Management Ltd 66 Cannon St, EC4N 6AE.			01-236 1425	
Call Fnd	11.60	8.67	12.27	6-Mth
7-day Fund	11.11	8.30	12.21	6-Mth
Dollar	6.93	—	—	6-Mth
Money Mngt. Acct.	11.00	8.23	12.20	3-Mth

Money Market Bank Accounts

	Gross	Net	Gr Equiv CAR	Int Cr
Adam & Co. plc 22 Charlotte Sq, Edinburgh, EH2 4DF			031-225 8484	
Full Service Cur Acc.	11.25	8.00	11.78	Qr
Aitken Hume 30 City Road, EC1Y 2AY.			01-638 6070	
Treasury Acc.	11.25	8.43	12.98	Qr
Hm. Int. Chq.	11.125	8.32	12.30	Mth
Allied Arab Bank Ltd 97-101 Cannon St, London, EC4N 5AD			01-283 9111	
HIRCA	11.50	8.60	—	Mth
Bank of Scotland 38 Threadneedle St, EC2P 2EH.			01-628 8060	
Money Mkt Cheque Acc.	11.00	8.23	12.30	Mth
Barclays Prime Account PO Box 125, Northampton			0604 252891	

NOTES

OPTIONS

3-month call rates

WORLD STOCK MARKETS

Indices

NEW YORK — DOW JONES

	Oct. 18	Oct. 17	Oct. 16	Oct. 15	Oct. 14	1985 High	1985 Low	Since Comp'n High	Since Comp'n Low
♦Industrials	1368.84	1369.29	1368.58	1350.81	1354.75	1369.29 (17/10)	1184.96 (4/1)	1369.29 (17/10/85)	41.22 (2/7/32)
Home Bnds	79.44	79.59	79.24	79.06	78.97	80.65 (15/7)	72.27 (29/5)	—	—
Transport.	660.86	659.76	659.80	657.42	660.58	702.6 (17/7)	553.03 (4/1)	702.6 (17/7/85)	12.32 (8/7/32)
Utilities	154.44	154.75	154.54	153.98	154.34	168.91 (12/7)	145.54 (4/1)	168.91 (12/7/85)	10.5 (28/4/42)
Trading Vol 000's†	107,510	140,510	117,380	110,356	78,640	—	—	—	—

♦Day's High 1383.40 (1378.35) Low 1358.87 (1556.85)

Industrial dividend yield%	Oct. 11	Oct. 4	Sep. 25	year ago (approx)
	4.50	4.64	4.66	4.85

STANDARD AND POORS

	Oct. 18	Oct. 17	Oct. 16	Oct. 15	Oct. 14	1985 High	1985 Low	Since Comp'n High	Since Comp'n Low
Industrials	208.57	209.49	209.97	207.61	207.94	215.83 (18/7)	128.24 (4/1)	215.83 (18/7/85)	3.62 (30/6/32)
Composite	187.04	187.66	187.98	186.08	186.37	195.65 (17/7)	163.68 (4/1)	195.65 (17/7/85)	4.40 (1/6/32)

	Oct. 9	Oct. 2	Sept. 25	year ago (approx)
Industrial div. yield	3.96	3.80	3.66	4.10
Industrial P/E ratio	12.27	12.39	12.13	10.47
Long Gov. Bond yield	10.51	10.51	10.51	19.18

N.Y.S.E. ALL COMMON

Oct. 18	Oct. 17	Oct. 16	Oct. 15	1985 High	1985 Low
108.15	108.41	108.49	107.60	113.49 (17/7)	94.50 (4/1)

Rises and Falls	Oct. 18	Oct. 17	Oct. 16
Issues Traded	1,977	1,984	1,967
Rises	732	794	950
Falls	757	719	527
Unchanged	488	478	480
New Highs	—	72	49
New Lows	—	20	28

TORONTO

	Oct. 18	Oct. 17	Oct. 16	Oct. 15	1985 High	1985 Low
Metals & Minerals	1866.14	1848.8	1867.5	1850.8	2190.07 (15/2)	1839.5 (8/1)
Composite	2546.83	2548.8	2545.2	2536.8	2819.9 (20/8)	2348.6 (8/1)
MONTREAL Portfolio	128.95	128.60	128.80	127.48	139.33 (19/7)	117.00 (4/1)

	Oct. 19	Oct. 17	Oct. 16	Oct. 15	1985 High	1985 Low
AUSTRALIA						
All Ord. (1/1/80)	1035.2	1054.0	1053.9	1051.6	1058.5 (14/10)	715.3 (7/1)
Metals & Mins. (1/1/80)	524.9	527.3	535.2	530.9	585.8 (20/6)	382.5 (7/1)
AUSTRIA						
Credit Aktien (2/1/62)	98.70	99.69	100.33	100.82	106.75 (17/9)	56.21 (24/1)
BELGIUM						
Brussels SE (5/1/66)	2886.54	2874.49	2862.01	2861.84	2888.35 (18/10)	2080.7 (18/1)
DENMARK						
Copenhagen SE (5/1/86)	233.36	232.71	231.17	231.45	233.88 (15/10)	158.44 (8/1)
FRANCE						
CAC General (31/12/82)	211.80	511.2	511.5	511.5	233.1 (31/5)	180.8 (6/1)
Ind Tendance (28/12/84)	119.00	119.1	118.7	119.4	130.4 (31/5)	100.1 (3/1)
GERMANY						
FAZ Aktien (31/12/58)	589.33	561.84	558.28	559.58	568.33 (18/10)	382.08 (3/1)
Commerzbank (1/12/53)	1672.4	1654.0	1634.8	1638.8	1672.4 (18/10)	1111.8 (3/1)
HONG KONG						
Hang Seng Bank (31/7/64)	1638.88	1624.79	1619.57	1602.88	1711.81 (18/8)	1220.74 (2/1)
ITALY						
Banca Comm Ital. (1972)	382.08	374.45	386.05	398.81	413.33 (9/10)	228.56 (2/1)
JAPAN**						
Nikkei-Dow (16/5/49)	12875.22	13021.1	13056.8	13056.5	13056.5 (16/10)	11545.2 (5/1)
Tokyo SE New (4/1/68)	1030.77	1034.88	1037.48	1042.24	1057.55 (10/7)	916.93 (4/1)
NETHERLANDS						
ANP-CBS General (1970)	216.4	516.9	214.5	214.4	223.0 (6/9)	185.6 (5/1)
ANP-CBS Indust (1970)	191.8	191.2	188.5	188.5	194.1 (6/9)	147.9 (3/1)
NORWAY						
Oslo SE (4/1/83)	375.88	375.38	375.74	375.58	376.42 (8/10)	288.15 (2/1)
SINGAPORE						
Straits Times (1966)	768.14	755.89	751.88	746.46	852.85 (7/8)	717.90 (15/7)
SOUTH AFRICA						
JSE Gold (28/9/78)	—	1091.4	1095.1	1108.5	1140.9 (15/4)	829.5 (5/8)
JSE Indust (28/9/78)	—	983.5	984.1	985.0	1038.8 (16/7)	767.1 (7/5)
SPAIN						
Madrid SE (28/12/84)	125.84	122.77	122.47	120.57	125.84 (18/10)	101.48 (2/1)
SWEDEN						
Jacobson & P (11/58)	1396.68	1375.30	1386.98	1354.06	1486.96 (11/2)	1365.32 (9/7)
SWITZERLAND						
Swiss Bank Cpe (31/12/58)	492.99	494.5	481.4	487.7	494.3 (17/12)	386.7 (8/1)
WORLD						
Capital Intl. (1/1/70)	—	228.8	227.8	227.2	228.6 (18/10)	184.8 (4/1)

** Saturday October 12: Japan Nikkei-Dow (c). TSE (c).

Base value of all indices are 100 except JSE Gold—255.7, JSE Industrial—264.3, and Australia, All Ordinary and Metals—500. NYSE All Common—50; Standard and Poors—10; and Toronto Composite and Metals—1,000. Toronto indices based 1975 and Montreal Portfolio 4/1/83. † Excluding bonds. ‡ 400 Industrials plus 40 Utilities, 40 Financials and 20 Transports. c Closed. u Unavailable.

NEW YORK ACTIVE STOCKS

Friday	Stocks traded	Closing price	Change on day
Texas Cas	3,858,300	18⅞	+ ⅛
Beatrice Co	3,321,900	46⅞	—
Union Carbide	2,468,800	60⅝	+2⅞
Litton	2,128,400	89	+11
Cinn Gas	1,798,900	12⅝	+ ⅛
Hosp CP Am	1,423,700	33½	+ ⅛
ITT	1,280,400	35⅝	+ ⅞
ATT	1,224,700	20¾	— ⅛
Pan Am Corp	1,208,100	8⅝	+ ⅛
Western Air	1,118,700	9⅞	—

OVER-THE-COUNTER *Nasdaq national market, closing prices*

Stock		Sales (Hnds)	High	Low	Last	Chng

Continued from Page 33

[illegible]

CANADA

TORONTO
Closing prices October 18

Sales	Stock	High	Low	Close	Chng
[illegible]					

F—No voting rights or restricted voting rights.

MONTREAL
Closing prices October 18

Sales	Stock	High	Low	Close	Chng
[illegible]					

Total Sales 3,075,550 shares

AUSTRIA

1985 High	1985 Low	Oct. 18	Price Sch %
[illegible]			

ITALY

1985 High	1985 Low	Oct. 18	Price Lire
[illegible]			

SWITZERLAND

1985 High	1985 Low	Oct. 18	Price Frs.
[illegible]			

SINGAPORE

1985 High	1985 Low	Oct. 18	Price S
[illegible]			

BELGIUM/LUXEMBOURG

1985 High	1985 Low	Oct. 18	Price Frs.
[illegible]			

FRANCE

1985 High	1985 Low	Oct. 18	Price Frs.
[illegible]			

SPAIN

1985 High	1985 Low	Oct. 18	Price Pts %
[illegible]			

JAPAN

1985 High	1985 Low	Oct. 19	Price Yen
[illegible]			

DENMARK

1985 High	1985 Low	Oct. 18	Price Kr. %
[illegible]			

AUSTRALIA

1985 High	1985 Low	Oct. 18	Price Aust. $
[illegible]			

NETHERLANDS

1985 High	1985 Low	Oct. 18	Price Fls
[illegible]			

GERMANY

1985 High	1985 Low	Oct. 18	Price Dm
[illegible]			

SOUTH AFRICA

1985 High	1985 Low	Oct. 18	Price Rand
[illegible]			

SWEDEN

1985 High	1985 Low	Oct. 18	Price Kroner
[illegible]			

NORWAY

1985 High	1985 Low	Oct. 18	Price Kroner
[illegible]			

Continued on Page 33

Closing prices, October 18

NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

12 Month High	12 Month Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
24⅝	16	AAR	.56	2.4	18	878	23½	23⅛	23¼	+⅛
17⅜	8¾	AGS			11	289	14¼	13¾	14	−½
15⅞	9⅝	AMCA				3	10	10	10	
50¾	28⅛	AMR			7	4017	40¾	38¾	40⅛	+⅜
23⅝	18⅝	AMR pf	2.18	9.4		3	23¼	23¼	23¼	
25⅞	23	ANR pf	2.67	11.		2	23¾	23¾	23¾	−¼
14¼	7⅝	APL				116	10⅛	9⅞	10⅛	+⅛
61⅛	34¾	ASA	2	5.5		412	37½	35⅛	36½	−1
27	10½	AVX	.32	2.7	17	100	11⅞	11¾	11¾	−⅛
28⅛	19¼	AZP	2.72	11.	7	2385	24¾	24¼	24½	
60	38⅝	AbtLab	1.40	2.4	15	1843	58	56⅝	57⅝	+⅝
25⅞	18⅝	AccoWd	.50	2.2	17	522	22⅝	22½	22⅝	−⅛
24¾	12¼	AcmeC	.40	3.3		34	12¾	d12⅛	12¼	−½
10½	7⅛	AcmeE	.32b	4.3	11	27	7½	7⅛	7½	+⅛
18	15½	AdaEx	1.92e	11.		26	17⅞	17¼	17¾	
20	13½	AdmMl	.32	1.8	7	64	17⅝	17¼	17½	+⅜
17¾	8⅝	AdvSys	.53t	3.6	20	271	14⅝	14	14⅛	−⅜
37⅞	22⅞	AMD			36	3490	25	24½	24⅝	−⅛
12⅛	6⅞	Advest	.12	1.4	19	96	8¾	8½	8¾	+⅛
15⅞	10	Aerflex			13	449	14¾	13⅞	14¾	+⅝
49⅝	34⅝	AetnLf	2.64	5.7	16	1519	46⅞	45⅝	46⅛	−½
57½	53	AetL pf	5.41e	9.8		7	56⅞	55¾	56⅛	+⅛
37⅝	22⅛	Ahmns	1.20	3.5	9	756	35⅝	34⅜	34¾	−⅞
3⅝	2½	Aileen				45	2⅞	2⅝	2¾	
57	42	AirPrd	1.48	2.8	12	547	53¾	53⅜	53⅜	−⅜
24⅝	17½	AirbFrt	.60	2.8	15	26	21¾	21½	21¾	+⅛
2⅛	1¼	AiMoa	s.10e	6.2		56	1¾	1⅝	1⅝	
28¼	23⅝	AlaP pf	2.74e	9.6		2008	28½	28¼	28½	+⅛
33⅜	28¾	AlaP pfA	3.92	13.		14	31⅝	31⅛	31¼	
8⅛	6½	AlaP dpl	.87	11.		1	7⅝	7⅝	7¾	
82	65¼	AlaP pf	9	11.		z190	81	79	80½	+1½
106¼	96⅞	AlaP pf	11	11.		z40	104⅝	104	104⅝	−⅝

Continued on Page 33

NYSE COMPOSITE CLOSING PRICES

Continued from Page 32

12 Month High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
12	8¼	Peabdy .20		1.8	28	372	11½	10⅞	11	−⅛
1¾	5-16	Pengo				207	½	⅜	½	
58⅝	43¾	PenCen			12	1646	50¾	49	49⅞	+¾
55¼	44⅝	Penney2.36		4.9	9	863	49⅞	48¼	48¼	
27⅞	23½	PaPL	2.56	10.	8	685	25⅜	24⅞	25⅛	+⅛
40¾	31¼	PaPL	pf4.40	12.		z20	37¼	36½	37¼	−¼
40½	32	PaPL	pf4.50	12.		z370	38	37½	37½	−½
29½	25⅛	PaPL	dpr3.42	12.		37	29	28⅝	28⅝	−⅝
27½	21⅝	PaPL	dpr2.90	11.		73	26½	26½	26½	+⅜
28½	24¼	PaPL	dpr3.25	11.		17	28⅝	28⅝	28⅝	
81¼	26⅝	PaPL	dpr3.75	12.		8	30⅝	30¼	30¼	−⅛
103½	88¼	PaPL	pr 11	11.		z300	102½	102	102	−⅛
74½	61	PaPL	pr8.70	12.		z210	72	71½	72	+⅛
41⅞	34	Penwlt 2.20		5.9		98	37⅝	36⅞	37⅛	
81	51½	Penw	pf2.50	4.5		3	55¼	55¼	55¼	+1¼
26⅝	20	Penw	pf1.60	7.0		13	23	22¾	22¾	−¼
50	32¾	Pennzo2.20		4.9	16	689	46½	44½	45	−1⅞
18⅞	13¾	PeopEn1.20		7.9	6	381	15⅝	15⅜	15¼	
24⅝	14¼	PepBy s .20		.9	19	19	23½	23¼	23½	+⅛
64¼	39⅞	PepsiCo1.78		2.8	11	4531	63⅝	62⅝	62⅝	−¼
30⅛	21⅝	PerkEl .56		2.4	13	581	24⅝	23⅝	23⅝	−⅛
9½	7⅜	Prmian1.12e		15.	8	294	7⅝	7½	7½	
16⅛	10¾	PeryD s				1154	15⅝	15½	15⅝	+⅛
44	31	Petrie	1.40	3.2	16	407	u44⅞	44	44	+1¼
28⅝	24⅝	PetRs 6.72e		14.		122	28½	27⅞	28⅛	−⅛
17	14	PetRs	pf1.57	9.4		71	16¾	16½	16⅝	+⅛
6	2¼	Ptrinv	.90e	27.		17	3⅜	3⅜	3⅜	
53¾	34⅝	Pfizer	1.48	3.3	13	3059	44⅝	44⅛	44½	−½
24	12⅞	PhelpD				316	21	20½	20½	−⅞
58	34	Phelp	pr .5	9.8		2	51	51	51	−¼
46¼	29	PhibrS	.54	1.5	20	3082	37⅜	36½	36½	−⅜
16⅜	13¾	PhilaEl2.20		14.	9	3774	15⅝	15¼	15¼	+⅛
32	24⅛	PhilE	pf3.80	13.		z180	29	29	29	+⅜
35	26½	PhilE	pf4.30	13.		z120	32	30¾	32	+⅜
69	54¼	PhilE	pf8.70	14.		z16	64	64	64	+1
11½	9¼	PhilE	pf1.41	16.		69	10⅝	10⅜	10½	+⅛

12 Month High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low
11⅞	7⅜	Rowan .12		1.6	83	534	7⅝	7½
64⅞	46	RoylD 3.29e		5.2	7	1842	64⅜	63¾
17	10⅛	Roylnt s			18	29	13¾	13½
28½	18⅛	Rubmds			12	112	28½	28¼
28	14¾	RussBr			11	129	17⅞	17¼
20¾	15⅝	RusTog .76		3.8	19	96	20	19¾
31¼	20⅝	RyanH	1	3.7	11	151	27¼	26⅞
36⅞	22	Ryder s .80		2.1	11	600	28⅝	28
29	18½	Ryland .66		3.0	16	20	21⅞	21¾
20⅛	8½	Rymer			4	80	15⅞	15⅜
13⅜	11¼	Rymer pf1.17		10.		95	11⅝	11⅝
		S S S						
74¼	40⅝	SCM	2	2.8	17	89	72⅝	72¼
12⅝	9⅜	SL Ind .22b		1.8	16	16	12⅛	12
32¾	19½	SPSTec .80		2.8	15	26	31	30⅝
16	15	Sabine .04		.3	37	31	15⅝	15⅝
21¼	16	SabnRy2.41e		14.		39	17¾	17½
20⅝	12¼	SigdBs .20		1.7	16	87	17¾	17⅜
12¾	5⅝	SigdSc			20	123	9¼	8⅞
2⅞	1¼	SigdS wt				4	2	1⅞
38⅝	23¼	SafKln s .40		1.2	21	93	33¼	32⅝
35⅝	25⅛	Safewy1.70		4.9	9	1317	35	34¼
25	20¾	Saga .52		2.3	12	202	23	22⅝
23	17⅞	StJoLP 1.72		8.4	7	9	20½	20⅜
11⅝	9⅝	SPaul 1.05		11.		94	10⅛	16
6⅝	3⅞	vjSalant				28	6½	6½
35¼	24⅜	SallieM .16		.5	14	882	32¾	32½
28⅝	20⅞	SDieG42.24		8.7	8	1703	25⅞	25⅝
9¾	6¾	SJuanB90e		11.	15	537	8½	8⅜
12⅛	8⅞	SJuanR			16	3	10⅞	10⅞
44	31	Sandr .80		1.8	16	751	34⅝	34
25⅝	26	SAnRt1.94		6.6	13	18	24⅝	24⅝
35⅝	23⅝	SFeSoP 1		3.1	13	1687	32⅞	32¼
46⅝	31⅛	SaraLe2.44		3.1	13	2360	u47	45¾
54½	50½	SaraL pf3.91e		7.7		1	51	51
35⅞	28⅞	SgtWel 1.40		4.1	15	81	24½	34¼
22¼	17¼	SavEIP1.60		8.0	7	27	20	19⅞

[illegible]

AMEX COMPOSITE CLOSING PRICES

Closing prices, October 18

[illegible]

OVER-THE-COUNTER

Nasdaq national market, closing prices

[illegible]

Continued on Page 31

Continued from Page 31

HONG KONG

[illegible]

CURRENCIES, MONEY and CAPITAL MARKETS

FOREIGN EXCHANGES

Banks regain initiative

BY COLIN MILLHAM

Central banks showed the firmer hand required to produce a slightly weaker dollar last week, and are probably satisfied with the outcome. Foreign exchange dealers are not convinced a fall of about 25 per cent in the dollar's value from the peak of DM 3.4510 touched in February is justified by recent events, but in the absence of evidence to the contrary the German Bundesbank seems set to achieve a rate of DM 2.60 for the U.S. currency in the very near future. The Bank of Japan also appears to be on target for a dollar value of Y210, or a fall of about 20 per cent from the high of Y263.15 in February.

The Japanese authorities have suggested a rate of Y200 would be appropriate, and will be keen to make this point when the Japanese Prime Minister visits Washington this week, in the face of a strong and vocal protectionist lobby in the U.S.

Central banks have no wish to see the dollar going into free fall however, as this would create more problems than it solves. It is therefore a delicate balance between keeping the market's confidence and engineering a gradual decline in the U.S. currency.

If left to its own devices the market wants to buy the dollar, but the fear of intervention is an overriding factor. After the Group of Five finance ministers' meeting on September 22 the central banks succeeded in establishing a sudden fall in the value of the dollar, but there was no fresh incentive at the IMF meeting in Seoul at the beginning of this month, and by last week there was evidence the market was losing some of its fear of the central banks.

Among the U.S. economic figures published last week, August business inventories fell by the expected 0.4 per cent, but September personal income rose by only half the anticipated amount at 0.3 per cent, while consumer spending for the same month increased 1.2 per cent, slightly less than expected.

These were relatively minor factors however, with the market's attention firmly fixed on the revised third quarter U.S. gross national product figure published on Thursday. Forecasts for the figure varied widely but growth of 3 per cent to 3.5 per cent was generally expected. Some economists were looking for a rise of up to 4 per cent, but shortly before the release it was rumoured the figure would be below the earlier flash estimate of 2.8 per cent.

The revised figure of 3.3 per cent growth therefore seemed quite reasonable, but the central bank had already undermined the foundations of a stronger dollar by intervention on Wednesday, the day before the GNP announcement, and the market needed something more to sustain its nerve.

After threatening to break above its recent trading range on Wednesday, when the dollar rose to DM 2.6850, the central banks soon regained the initiative, pushing the U.S. currency down by over 2 pfennigs on the week.

With the Federal Reserve taking more of a lead in the attempt at co-ordinated intervention the gradual decline in the dollar's value seems set to continue.

£ IN NEW YORK

	Oct. 18	Prev. close
£ Spot	$1.4290-4300	$1.4155-4165
1 month	0.44-0.49 pm	0.43-0.42 pm
3 months	1.19-1.16 pm	1.15-1.10 pm
12 months	2.96-2.87 pm	2.90-2.80 pm

Forward premiums and discounts apply to the U.S. dollar

CURRENCY MOVEMENTS

Oct. 10	Bank of England Index	Morgan Guaranty Change %
Sterling	80.6	−9.8
U.S. dollar	130.7	+18.7
Canadian dollar	84.1	−8.6
Austrian schilling	118.8	+0.2
Belgian franc	91.0	−10.0
Danish Kroner	81.6	−3.0
Deutsche mark	128.1	+0.6
Swiss franc	151.1	+13.1
Guilder	117.0	+5.3
French franc	68.6	−10.6
Lira	44.0	−19.9
Yen	169.6	+93.9

Morgan Guaranty changes: average 1980-1982=100. Bank of England Index (base average 1975=100).

OTHER CURRENCIES

Oct. 18	£	$
Arg'tina	1.1424-1.1447	0.8000-0.8010
Aus'alia	2.0205-2.0245	1.4170-1.4195
Brazil	11,709-11,774	8,200-8,240
Finland	8.0965-8.1065	0.0735-5.6755
Greece	018.24-222.94	132.06-156.13
H'kong	11.1220-11.1490	7.7930-7.7960
Iran	123.0.0*	87.20*
Kuwait	0.4906-0.4010	0.28675-0.28680
Lux'burg	76.10-76.20	53.30-53.40
Malay'sa	3.4970-3.5070	2.4540-2.4570
N'Z'land	2.4443-2.4545	1.7125-1.7185
Saudi Ar.	3.3080-5.0160	0.6500-3.001D
Sin'pore	3.0485-3.0550	2.1360-2.1390
S.Af.(Dm)	3.7385-3.7580	2.8180-2.631
S.Af.(Fn)	4.2006-4.6270	2.9415-3.030
U.A.E.	0.2386-5.2466	5.0720-3.9730

* Selling rate.

CURRENCY RATES

Oct. 18	Bank rate %	Special Drawing Rights	European Currency Unit
Sterling	—	0.747882	0.588050
U.S.$	7½	1.06866	0.838531
Canadian $	8.33	*	1.14469
Austria Sch.	4	19.7288	15.0128
Belgian Fr.	0	56.8876	44.7524
Danish Kr.	7	10.1771	8.00620
D mark	4	0.80791	0.20911
Guilder	5	3.17087	0.49421
French Fr.	0½	8.60791	6.74305
Lira	15½	1896.29	1491.64
Yen	0	000.490	180.494
Norway Kr.	8	8.43470	6.64326
Span'h Pta.	—	171.078	100.013
Swedish Kr.	10½	8.46187	6.66003
Swiss Fr.	4	9.30715	1.81542
Greek Dr'ch	20½	166.055	109.788
Irish Punt	—	0.907331	0.713947

*C$/SDR rate for Oct 17: 1.44982.

FINANCIAL FUTURES

POUND—$ (FOREIGN EXCHANGE)

Spot	1-mth	3-mth	6-mth	12-mth
1.4275	1.4232	1.4158	1.4066	1.3948

IMM—STERLING $s per £

	Close	High	Low	Prev
Dec	1.4200	1.4230	1.4175	1.4095
March	1.4100	1.4125	1.4065	1.4005
June	1.4030	1.4040	1.4025	1.3940

LIFFE—STERLING £25,000 $ per £

	Close	High	Low	Prev
Dec	1.4195	1.4219	1.4150	1.4095
March	1.4095	—	—	1.4005
June	1.4025	—	—	1.3940

Est volume 117 (154)
Previous day's open int 3,536 (3,506)

LIFFE—DEUTSCHE MARKS DM 125,000 $ per DM

	Close	High	Low	Prev
Dec	0.3814	0.3825	0.3819	0.3908
March	0.3846	0.3849	0.3848	0.3841
June	0.3880	—	—	0.3875

Est volume 36 (59)
Previous day's open int 446 (440)

CHICAGO

U.S. TREASURY BONDS (CBT) 8% $100,000 32nds of 100%

	Close	High	Low	Prev
Dec	76-22	76-30	76-14	76-13
March	75-19	75-21	75-06	75-05
June	74-09	74-18	74-05	74-02
Sept	73-08	73-14	73-04	73-01
Dec	72-10	72-17	72-06	72-03
March	71-14	71-20	71-14	71-08
June	70-21	70-22	70-21	70-15
Sept	—	—	—	—
Dec	69-11	—	—	69-05
March	68-25	—	—	68-10

U.S. TREASURY BILLS (IMM) $1m points of 100%

	Close	High	Low	Prev
Dec	92.92	92.95	92.90	92.91
March	92.62	92.64	92.59	92.59
June	92.27	92.29	92.24	92.24
Sept	91.94	91.90	91.92	91.91
Dec	91.64	91.68	91.62	01.61
March	91.37	91.39	91.37	91.34
June	91.12	91.18	91.11	91.09
Sept	—	90.90	90.88	90.86

CERT DEPOSIT (IMM) $1m points of 100%

	Close	High	Low	Prev
Dec	92.12	92.14	92.09	92.10
March	91.80	91.82	91.80	91.74
June	91.42	91.43	—	91.37
Sept	91.08	—	—	91.03

THREE-MONTH EURODOLLAR (IMM) $1m points of 100%

	Close	High	Low	Prev
Dec	91.80	91.85	91.79	91.78
March	91.48	01.52	91.46	91.44
June	91.12	91.13	91.11	91.07
Sept	90.78	90.82	90.77	90.73
Dec	90.46	90.51	90.45	90.41
March	90.16	90.20	90.14	90.11
June	89.88	89.94	89.85	89.83
Sept	89.62	89.66	89.60	89.57

LIFFE—EURODOLLAR OPTIONS $1m points of 100%

Strike price	Calls—Last Dec	March	June	Vol	Puts—Last Dec	March	June
90.00	1.83	1.58	1.37	—	0.00	0.08	0.21
90.50	1.33	1.13	1.00	—	0.00	0.13	0.34
91.00	0.86	0.74	0.68	28	0.02	0.26	0.52
91.50	0.43	0.44	0.43	—	0.10	0.44	0.77
92.00	0.14	0.22	0.24	10	0.31	0.72	1.08
92.50	0.03	0.08	—	—	0.70	1.09	—
93.00	0.00	—	—	—	1.17	—	—

Previous day's open int: Calls 2,387 Puts 2,752

LIFFE £/$ OPTIONS £25,000 (cents per £1)

Strike price	Calls—Last Dec	March	June	Vol	Puts—Last Dec	March	June
1.20	22.74	22.74	22.74	—	0.01	0.50	1.25
1.25	17.74	17.74	17.74	—	0.06	1.08	2.30
1.30	12.74	13.05	13.82	—	0.30	2.10	3.67
1.35	7.87	0.60	10.67	13	1.02	3.65	5.42
1.40	4.56	0.77	8.03	25	2.61	5.82	7.78
1.45	2.24	4.58	9.89	249	9.29	8.63	10.44
1.50	0.93	2.96	4.22	82	8.98	12.01	13.82

Previous day's open int: Calls 9,187 Puts 15,634

LONDON SE £/$ OPTIONS £12,500 (cents per £1)

Strike price	Calls—Last Dec	March	June	Vol	Puts—Last Dec	March	June
1.20	23.20	23.20	23.40	—	0.15	0.60	1.20
1.25	18.20	18.30	18.30	—	0.16	1.10	2.10
1.30	13.30	13.60	14.30	—	0.40	2.00	3.80
1.35	8.30	9.70	10.70	20	1.15	3.40	5.00
1.40	4.80	6.85	8.20	80	2.70	9.60	7.30
1.45	2.90	4.50	6.20	8	5.30	8.40	10.60
1.50	1.00	2.80	4.50	1	8.90	11.70	13.20

Previous day's open int: Calls 8,411 Puts 5,436

PHILADELPHIA SE £/$ OPTIONS £12,500 (cents per £1)

Strike price	Calls—Last Dec	March	June	Vol	Puts—Last Dec	March	June
1.20	—	—	—	—	0.05	—	—
1.25	17.50	—	—	4	—	0.95	—
1.30	—	—	—	—	0.35	1.85	3.10
1.35	6.00	0.50	—	170	1.00	3.15	—
1.40	4.55	6.45	7.80	928	2.40	0.19	7.20
1.45	2.10	4.30	5.80	1,487	—	—	—
1.50	0.95	2.70	4.06	1,131	—	—	—

LONDON

20-YEAR 12% NOTIONAL GILT £50,000 32nds of 100%

	Close	High	Low	Prev
Dec	114-03	114-12	113-28	113-24
March	114-05	—	—	113-26
June	—	—	—	—
Sept	113-05	—	—	112-28
Dec	113-05	—	—	112-28

Est volume 5,497 (2,447)

10% NOTIONAL SHORT GILT £100,000 64ths of 100%

	Close	High	Low	Prev
Dec	98-26	98-27	98-10	98-30
March	98-36	—	—	98-40

Est volume 1,247 (664)
Previous day's open int 1,347 (1,419)

THREE-MONTH STERLING £500,000 points of 100%

	Close	High	Low	Prev
Dec	88.85	89.01	88.84	89.12
March	89.36	89.43	89.22	89.57
June	89.55	89.57	89.52	89.70
Sept	89.47	89.48	89.43	89.61
Dec	89.27	89.26	89.25	89.48

Est volume 4,488 (1,280)
Previous day's open int 7,585 (7,377)

FT-SE 100 INDEX £25 per full index point

	Close	High	Low
Dec	134.90	135.40	133.70
March	135.90	136.90	135.45

Est volume 390 (498)
Previous day's open int 1,376

THREE-MONTH EURODOLLAR $1m points of 100%

	Close	High	Low
Dec	91.83	91.85	91.78
March	91.50	91.51	91.46
June	91.10	91.18	91.12
Sept	90.83	90.84	90.79
Dec	90.52	90.61	90.51

Est volume 4,653 (4,493)
Previous day's open int 21,884

U.S. TREASURY BONDS 8% 32nds of 100%

	Close	High	Low
Dec	76-25	76-29	76-12
March	75-19	75-18	75-06

Est volume 2,828 (2,887)
Previous days' open int 2,836

POUND SPOT—FORWARD AGAINST POUND

October 18	Day's spread	Close	One month	% p.a.	Three months	% p.a.
U.S.	1.4160-1.4300	1.4270-1.4280	0.45-0.42c pm	3.66	1.20-1.15pm	3.29
Canada	1.9456-1.9613	1.9480-1.9500	0.68-0.48c pm	3.28	1.47-1.33pm	2.87
Nethlnd.	4.22¼-4.25¼	4.24¼-4.25¼	2¼-2c pm	5.83	6-5¾pm	5.47
Belgium	75.70-76.39	76.10-76.20	20-17c pm	2.92	54-48pm	2.68
Denmark	13.60-13.66	13.62¾-10.64¾	3-2¾ore pm	2.31	7¾-6¾pm	2.13
Ireland	1.2077-1.2165	1.2156-1.2166	0.28-0.15p pm	2.12	0.67-0.46pm	1.86
W. Ger.	3.73¼-3.77	3.76-3.77	2½-2¼pf pm	7.17	6¾-6pm	6.51
Portugal	230-234½	231-234	70-340c dis	−10.58	375-1375dis	−13.06
Spain	229-231	230½-231	10c pm-25dis	−0.39	300-455dis	−9.54
Italy	2,627½-2,648	2,638½-2,539½	2-3lire dis	−1.19	11-15dis	−2.05
Norway	11.27-11.33½	11.30¾-11.31¾	¼-1¼ore dis	−0.93	2¾-3¼dis	−1.13
France	11.40¾-11.50¾	11.48-11.49	2½-2c pm	2.35	4¼-3½pm	1.35
Sweden	11.29¾-11.37¾	11.33¾-11.34¾	2⅞-3¼ore dis	−3.31	8-8½dis	−2.93
Japan	306-307½	306½-307½	1.37-1.30y pm	5.22	3.82-3.70pm	4.90
Austria	26.38-26.60	26.44-26.50	13⅞-12½gro pm	5.98	38-33½pm	5.42
Switz.	3.07-3.10	3.09-3.10	2-1⅞c pm	7.51	5½-5pm	6.70

Belgian rate is for convertible francs. Financial franc 76.70-76.90. Six-month forward dollar 2.12-2.07c pm. 12-month 3.35-3.20c pm.

DOLLAR SPOT—FORWARD AGAINST DOLLAR

October 18	Day's spread	Close	One month	% p.a.	Three months	% p.a.
UK†	1.4160-1.4300	1.4270-1.4280	0.45-0.42c pm	3.66	1.20-1.15pm	3.29
Ireland†	1.1717-1.1780	1.1735-1.1745	0.17-0.13c pm	1.53	0.47-0.37pm	1.43
Canada	1.3644-1.3660	1.3650-1.3660	0.03-0.05c dis	−0.35	0.11-0.16dis	−0.38
Nethlnd.	2.9630-2.9795	2.9745-2.9755	0.54-0.51c pm	2.12	1.64-1.60pm	2.10
Belgium	53.16-53.49	53.30-53.40	2-3c dis	−0.56	6-8dis	−0.52
Denmark	9.52½-9.58½	9.55½-9.56	¼-1¾ore dis	−1.26	1¼-1¾dis	−0.63
W. Ger.	2.6240-2.6425	2.6360-2.6370	0.80-0.75pf pm	3.53	2.24-2.19pm	3.36
Portugal	182¼-183¾	182¾-183½	100-300c dis	−14.72	400-1100dis	−19.40
Spain	160.85-161.38	161.25-161.35	50-70c dis	−4.47	200-275dis	−3.90
Italy	1,774-1,786	1,778-1,779	8-9½lire dis	−6.32	25-27dis	−5.96
Norway	7.88¾-7.93½	7.92¼-7.92¾	3-3¼ore dis	−4.74	8¼-8½dis	−4.23
France	8.00½-8.05¼	8.04¼-8.04¾	0.82-0.97c dis	−1.34	3.60-3.80dis	−1.87
Sweden	7.91¼-7.95¾	7.94-7.94½	4¾-5ore dis	−7.37	12¼-12½dis	−6.23
Japan	214.80-215.55	215.05-215.15	0.33-0.29y pm	1.73	0.91-0.86pm	1.64
Austria	18.44½-18.54½	18.51½-18.52½	4-3¼gro pm	2.35	11½-9pm	2.22
Switz.	2.1560-2.1700	2.1680-2.1690	0.76-0.70c pm	4.02	1.96-1.91pm	3.68

† UK and Ireland are quoted in U.S. currency. Forward premiums and discounts apply to the U.S. dollar and not to the individual currency. Belgian rate is for convertible francs. Financial franc 53.70-53.80.

EXCHANGE CROSS RATES

Oct. 18	£	$	DM	YEN	F Fr.	S Fr.	H Fl.	Lira	C $	B Fr.
£	1.	1.428	3.765	307.0	11.49	3.095	4.248	2539.	1.948	[illegible]
$	0.701	1.	2.657	215.1	8.045	2.169	2.976	1779.	1.365	[illegible]
DM	0.266	0.379	1.	81.54	3.050	0.822	1.128	674.4	0.518	[illegible]
YEN	3.257	4.650	12.29	1000.	37.41	10.08	13.84	8270.	6.349	[illegible]
F Fr.	0.871	1.243	3.278	267.3	10.	2.695	3.698	2211.	1.697	[illegible]
S Fr.	0.323	0.461	1.216	99.18	3.711	1.	1.372	820.4	0.630	[illegible]
H Fl.	0.235	0.336	0.886	72.28	2.704	0.729	1.	597.9	0.459	[illegible]
Lira	0.394	0.562	1.483	120.9	4.093	1.219	1.673	1000.	0.768	[illegible]
C $	0.513	0.732	1.932	157.5	5.893	1.588	2.179	1303.	1.	[illegible]
B Fr.	1.318	1.876	4.944	403.3	15.08	4.064	5.578	3334.	2.559	[illegible]

Yen per 1,000: French Fr per 10: Lira per 1,000: Belg Fr per 100.

FORWARD RATES AGAINST STERLING

	Spot	1-month	3-month	6-month	12-month
Dollar	1.4275	1.4233	1.4183	1.4084	1.3966
D-Mark	3.7650	2.7425	3.7027	3.6493	3.5636
French Franc	11.4850	11.4607	11.4401	11.4452	11.606
Swiss Franc	3.0950	3.0754	3.0420	2.9986	2.9094
Japanese Yen	307.00	305.86	303.25	298.95	294.35

EURO-CURRENCY INTEREST RATES

Oct. 19	Short term	7 Days notice	1 Month	Three Months	Six Months	One Year
Sterling	11½-11⅝	11½-11⅝	11⅝-11 11/16	11½-11⅝	11 9/16-11 11/16	11½-11¼
U.S. Dollar	7⅞-8	7 15/16-8 1/16	7 15/16-8 1/16	8 1/16-8 3/16	8 3/16-8 5/16	8½-8⅝
Can Dollar	7⅝-8½	7¾-8	8½-8⅞	8 9/16-8 11/16	9⅝-8⅞	9 1/16-9 3/16
D Guilder	5¾-3⅞	5¾-5⅞	5 13/16-5 15/16	5 13/16-5 15/16	5⅞-6	0⅞-6
Sw. Franc	1⅛-1⅝	1⅛-1⅜	4 1/16-4 3/16	4½-4⅝	4 5/16-4 7/16	4 5/16-4 11/16
Deutschmrk	4⅜-4½	4½-4⅝	4⅜-4⅝	4⅝-4¾	4 11/16-4 13/16	4⅞-5
Fr. Franc	9⅛-0¼	9⅛-0¼	9 5/16-9 7/16	9⅞-10	10 5/16-10 7/16	10⅞-11½
Italian Lira	12-14	12½-14	13-14	16¼-13¾	16¼-13¾	16½-14
B.Fr.(Fin)	9¼-0½	8¾-9	8⅜-8⅞	8¾-9	9⅞-9½	0-9¼
Br.Fr.(Con)	0¼-9½	8¾-9	8⅝-8⅞	8¾-9	8⅞-9⅛	0-9¼
Yen	0¼-6 5/16	6⅝-0⅛	6 7/16-0 1/16	6⅛-0⅝	6 7/16-6 5/16	6 7/16-6 5/16
D. Krone	9½-10	9½-10	9¼-0⅝	0⅛-9⅝	0¼-9¾	0⅝-0⅞
Asian $ (Sng)	8-8½	8-8½	8-8½	8 1/16-8 3/16	8 1/16-8 3/16	8¼-8⅝

Long-term Eurodollars: two years 9⅛-9⅜ per cent; three years 9⅞-10⅛ per cent; four years 10⅛-10⅜ per cent; five years 10⅜-10⅝ per cent nominal. Short-term rates are call for U.S. dollars and Japanese yen; others two days' notice.

EMS EUROPEAN CURRENCY UNIT RATES

	Ecu central rates	Currency amounts against Ecu October 19	% change from central rate	% change adjusted for divergence	Divergence limit %
Belgian Franc	44.8320	44.7524	−0.18	+0.67	[illegible]
Danish Krone	8.12857	6.00629	−1.50	−0.71	[illegible]
German D-mark	2.23840	2.20911	−1.31	−0.52	[illegible]
French Franc	6.86402	6.74305	−1.76	−0.97	[illegible]
Dutch Guilder	2.52208	2.49421	−1.11	−0.32	[illegible]
Irish Punt	0.724578	0.713947	−1.47	−0.68	[illegible]
Italian lira	1520.60	1491.54	−1.91	−1.78	[illegible]

Changes are for Ecu, therefore positive change denotes a weak currency. Adjustment calculated by Financial Times.

MONEY MARKETS

No hint of early rate change

The London money market waited anxiously for the speech by Mr Nigel Lawson, Chancellor of the Exchequer, at the Mansion House on Thursday night, but the event was allowed to pass without any very strong reaction.

Mr Lawson's statement that the Government would not hesitate to raise short-term interest rates to tighten monetary conditions would have had more immediate impact if rates were not already nearly double the rate of inflation, and if sterling M3 had not been relegated to a more minor role in determining policy.

Sterling M3 has grown at an annual rate of 18.5 per cent in the last six months, but the narrow monetary aggregate of notes and coin, known as M0, has grown by only 3.3 per cent in the same period, and by a mere 1.1 per cent in the last three months.

UK clearing banks base lending rate 11½ per cent since July 30.

Since sales of gilts will no longer be a method of keeping money supply under control, but simply a means of funding the Government's borrowing needs, via the public sector borrowing requirement, there should also be no need for the authorities to increase interest rates to sell stock. The high yields on gilts become attractive as interest rates are brought back down, but this tactic should no longer be necessary.

The Chancellor's forecast that inflation will be below 4 per cent next year, coupled with his intimation that interest rates will remain firm, should help to underpin sterling. It will also be seen as conforming with the spirit of the Group of Five declaration to boost the value of the major currencies against the dollar.

The net result for the money market was therefore very little. Interest rates are unlikely to fall very far, but with the pound firm and inflation declining there is also little immediate prospect of a rise.

MONEY RATES

NEW YORK (4 pm)

Prime rate	[illegible]
Broker loan rate	[illegible]
Fed funds	[illegible]
Fed funds at intervention	[illegible]
Treasury Bills & Bonds	
One month	[illegible]
Two month	[illegible]
Three month	[illegible]
Six month	[illegible]
One year	[illegible]
Two year	[illegible]
Three year	[illegible]
Four year	[illegible]
Five year	[illegible]
Seven year	[illegible]
10 year	[illegible]
30 year	[illegible]

BANK OF ENGLAND TREASURY BILL TENDER

	Oct 18	Oct. 4		Oct. 18	Oct. 4
Bills on offer	£100m	£100m	Top Accepted rate of discount	11.1104	[illegible]
Total of applications	£345m	£317.4m	Average rate of discount	[illegible]	[illegible]
Total allocated	£100m	£100m	Average yield	[illegible]	[illegible]
Minimum accepted bid	£97.03	£97.245	Amount on offer at next tender	[illegible]	[illegible]
Allotment at minimum level	41%	84%			

London—band 1 bills mature in up to 14 days, band 2 bills 15 to 33 days, band 3 bills 34 to 63 days and band 4 bills 64 to 91 days. [illegible]

WEEKLY CHANGE IN WORLD INTEREST RATES

LONDON	Oct. 18	change	NEW YORK	Oct. 18	change
Base rates	11½	Unch'd	Prime rates	9½	Unch'd
7 day interbank	11½	+⅛	Federal funds	7 15/16	+ 1/16
3mth interbank	11 9/16	[illegible]	3 Mth. Treasury Bills	7.41	−0.01
Treasury Bill Tender	11.0982	[illegible]	6 Mth. Treasury Bills	[illegible]	[illegible]
Band 1 Bills	[illegible]	[illegible]	3 Mth. CD	[illegible]	[illegible]
Band 2 Bills	[illegible]	[illegible]	FRANKFURT		
Band 3 Bills	[illegible]	[illegible]	Lombard	6.5	Unch'd
3 Mth. Treasury Bills	[illegible]	[illegible]	One Mth. Interbank	[illegible]	[illegible]
3 Mth. Bank Bills	[illegible]	[illegible]	Three month	[illegible]	[illegible]
TOKYO			PARIS		
One month Bills	6.46876	[illegible]	Intervention Rate	[illegible]	[illegible]
Three month Bills	6.46875	[illegible]	One Mth. Interbank	[illegible]	[illegible]
			Three month	[illegible]	[illegible]
BRUSSELS			MILAN		
One month	[illegible]	[illegible]	One month	[illegible]	[illegible]
Three month	[illegible]	[illegible]	Three month	[illegible]	[illegible]
AMSTERDAM			DUBLIN		
One month	[illegible]	[illegible]	One month	10	[illegible]
Three month	[illegible]	[illegible]	Three month	[illegible]	[illegible]

MONEY RATES

Oct. 19	Over night	One Month	Two Months	Three Months	Six Months	Lombard Intervention
Frankfurt	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.5
Paris	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Zurich	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—
Amsterdam	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—
Tokyo	[illegible]	[illegible]	[illegible]	[illegible]	—	—
Milan	[illegible]	[illegible]	[illegible]	[illegible]	—	—
Brussels	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—
Dublin	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—

FT LONDON INTERBANK FIXING

(11.00 a.m. Oct. 18) Three months U.S. dollars | Six months U.S. dollars

bid [illegible] | offer [illegible] | bid [illegible] | offer [illegible]

The fixing rates are the arithmetic means, rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted by the market to five reference banks at 11 a.m. each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque Nationale de Paris and Morgan Guaranty Trust.

LONDON MONEY RATES

Oct. 18	Over night	7 days notice	Month	Three Months	Six Months	One Year
Interbank	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sterling CDs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Local Authority Deps	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Local Author'y Bonds	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Discount Mkt Deps	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Company Deps	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Finance House Deps	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Treasury Bills (Buy)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Bank Bills (Buy)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fine Trade Bills (Buy)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dollar CDs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SDR Linked Deps	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ECU Linked Deps	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Treasury Bills (sell): one-month [illegible] per cent; three-month [illegible] per cent. Bank Bills (sell): one-month [illegible] per cent; three-month [illegible] per cent. Treasury Bills: Average tender rate of discount [illegible] per cent. ECGD Fixed Rate Sterling Export Finance. Make up day September 30. Agreed rates for period October 23 to November 26. Scheme II & III: [illegible] per cent. Reference rate for period September 4 to October 1 (inclusive): [illegible] per cent. Local Authority and Finance Houses seven days' notice, others seven days' fixed. Finance Houses Base Rate 12 per cent from October 1 1985. Bank Deposit Rates for sums at seven days' notice [illegible] per cent. Certificates of Tax Deposit (Series 6): Deposit £100,000 and over held under one month [illegible] per cent; one-three months [illegible] per cent; three-six months [illegible] per cent; six-nine months [illegible] per cent; nine-12 months [illegible] per cent. Under £100,000 [illegible] per cent from [illegible]. Deposits held under Series 5 [illegible] per cent. Deposits withdrawn for cash [illegible] per cent.